SONY

SP01114

UHF SYNTHESIZED DIVERSITY TUNER

WRR-802A

SERVICE MANUAL

CE Model
AU Model

1st Edition

⚠警告

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お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

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SONY

3-867-234-21 (1)

UHF Synthesized Diversity Tuner

Operating Instructions GB
Bedienungsanleitung DE
Wireless Channel Lists/Übertragungskanallisten

WRR-802A

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CE62 CE69

English

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

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Precautions

On operation

- The unit must be used within a temperature range of 0°C to 40°C. Avoid using the unit for extended periods at extremely high temperatures or placing it in direct sunlight, especially outdoors because this may damage the finish of the case. Never install the unit on or near a heat source, such as lighting equipment or power amplifiers.
- Avoid using in very humid or dusty places, because such use may shorten the life of the unit.
- To avoid degradation of the signal-to-noise ratio, do not use the unit in noisy places or in locations subject to vibration, such as the following:
  — near electrical equipment, such as motors, transformers or dimmers
  — near air conditioning equipment or places subject to direct air flow from an air conditioner
  — near public address loudspeakers
  — where adjacent equipment might knock against the unit
- Switching lights on or off may produce electrical interference over the entire frequency range. Position the unit and the wireless microphones so that interference is minimized.
- The unit is precisely adjusted at the factory and no adjustment before use is necessary. Do not touch the inside of the unit or try to repair it by yourself.

On cleaning

Clean the unit with a dry, soft cloth. Never use thinner, benzene, alcohol or any other chemicals, since these may damage the finish.

Overview

The WRR-802A is a reliable UHF synthesized diversity tuner for the 800-MHz-band Sony UHF wireless microphone system which uses the frequency bands allocated for UHF TV broadcasting.
This unit is designed to enable simultaneous use of multiple channels when channels are selected according to the channel plan.
In building up a UHF wireless microphone system, be sure to combine a microphone/transmitter and a tuner having the same TV channel number (62 or 69).

CE62 model
A 14 MHz frequency band is assigned to the WRR-802A/CE62 model, permitting it to operate on any of 111 receiving frequencies in 125-kHz steps of Sony original channel plan or 561 receiving frequencies in 25-kHz steps of German User Group in the range of TV channels 62 and 63.

The selectable wireless channels and frequencies for this model are listed pages L-3 through L-11.

CE69 model
An 8 MHz frequency band is assigned to the WRR-802A/CE69 model, permitting it to operate on any of 64 receiving frequencies in 125-kHz steps of Sony original channel plan in the range of TV channel 69 or 14 receiving frequencies in 25-kHz steps of UK General Use.

The selectable wireless channels and frequencies for this model are listed on page L-12 and L-13.

Features

Phase Locked Loop (PLL) synthesized system

The WRR-802A has a refined phase locked loop (PLL) synthesizer circuit.

Preprogrammed wireless channel plan for simultaneous multichannel operation

The WRR-802A has many preprogrammed, easily settable channels in a simultaneous multichannel operation.

Section 1
Operating Instructions

This section is extracted from operation manual.

Versatile display

A liquid-crystal display provides a variety of information, including the levels of the reception channels, RF information and transmitter battery alarm.

Space diversity reception system

The WRR-802A provides stable signal reception with minimum dropout.

Tone squelch circuit for noise elimination

A built-in squelch circuit eliminates noise and signal interference when the WRR-802A is in signal reception standby mode.

Compander system

A compander (compressor/expander) system enables stabilized wireless transmission over a wide dynamic range.

Adjustable audio output level

You can adjust the audio output level by volume.

System Configuration

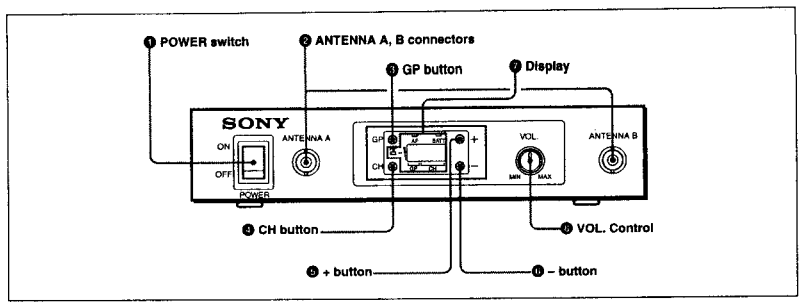
The unit can be used with a Sony UHF synthesized wireless microphone or UHF synthesized transmitter among the models listed in the table below.

Sony 800 MHz-band system models

Frequency band		Model name	
TV channel	Frequency (MHz)	Transmitter or microphone	Tuner
62	800.000 to 814.000	WRT-805A (62) WRT-807A (62) WRT-822A (62)	WRR-805A (62) WRR-802A (62) MB-806A with WRU-806A (62)
69	854.125 to 862.000	WRT-805A (69) WRT-807A (69) WRT-822A (69)	WRR-805A (69) WRR-802A (69) MB-806A with WRU-806A (69)

Location of Parts and Controls

Front Panel



1 POWER switch
Turns the power on and off.

2 ANTENNA A, B (antenna A, B) connectors (BNC type)
Connect the supplied antennas.
The DC power voltage is not output from the antenna connector.

3 GP (group) button
To change the group, press the + or – button while holding this button down.

4 CH (channel) button
To change the channel in a group, press the + or – button while holding this button down.

5 + button
To go to a higher group or channel, press this button while holding the GP or CH button.
Press this button changes the indication from GP/CH to frequency.

Channel Plan

The unit stores several groups of channels. See "Overview of Channel Plan" in the "Wireless Channel Lists" section. Channel groups other than group 00 are designed so that all channels of one group can be used simultaneously within the same UHF wireless microphone system without causing intermodulation. It is therefore recommended that you usually use a channel group other than group 00 unless the use of group 00 is specifically necessary.

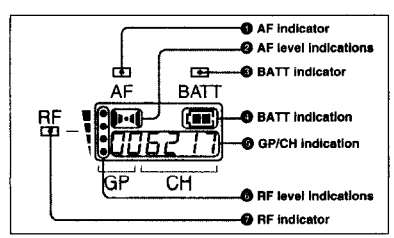
6 – button
To go to a lower group or channel, press this button while holding the GP or CH button.

7 Display
Displays the status of this unit and the groups and channels assigned to the unit.

For details, see the following section "Display".

8 VOL. (volume) control
Adjusts the volume of the tuner output.

Display



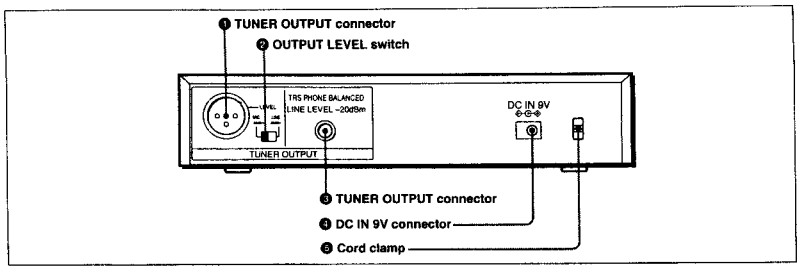
1 AF (audio frequency) indicator
2 AF (audio frequency) level indications
The indicator lights and the indications appear when the audio output level is higher than the reference level.

3 BATT (battery) indicator
4 BATT (battery) indication
Indicate the condition of the wireless microphone transmitter batteries. The indicator and indication appear and start flashing about one hour before the transmitter batteries go flat. The time at which flashing begins will depend on the type of battery used in the transmitter, and its condition.

5 GP/CH (group/channel) indication
Shows the reception channel group and respective channel number.
Pressing the + button changes this indication to the frequency indication.

6 RF (radio frequency) level indications
7 RF (radio frequency) indicator
The indicator lights and the indications (dots) appear when the antenna reception is optimal. Depending on the RF input level, the number of dots changes.

Rear Panel



❶ TUNER OUTPUT (tuner sound output) connector (XLR type)
Supplies audio signals. You can connect this to the audio input connector of a mixer, amplifier, or similar equipment.

❷ OUTPUT LEVEL switch
Select the output level of the XLR type connector as –20 dBm or –58 dBm. (0 dBm=0.775 Vrms)
Set this switch according to the input level of the equipment connected to the tuner.

❸ TUNER OUTPUT (tuner sound output) connector (ø6.3 phone balanced (TRS))
Supplies audio signals. You can connect this to the audio input connector of a mixer, amplifier, or similar equipment. Output level is fixed at –20 dBm.

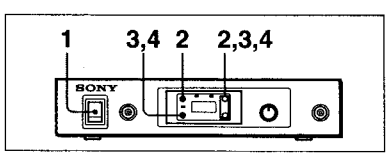
❹ DC IN 9V (9 V DC power input) connector
Connect the supplied AC power adaptor.

❺ Cord clamp
Attaches the cord of the AC power adaptor.

Channel Setting

Here is explained channel setting for the CE62 model as an example.

Take the following precautions to prevent interference and noise.
- If there is a TV broadcasting station nearby, to avoid possible interference from its broadcasting, do not use that station's channel.
- When simultaneously using two or more tuners, always set the tuners to different channels within the same group (other than group 00).

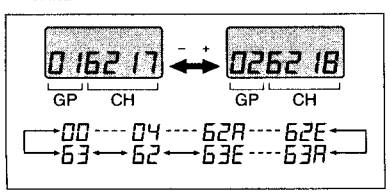


1 Turn the POWER switch on.

The message "CE62" appears on the display, and then *the current status of this unit is displayed.*

Note
Turn the POWER switch on after reducing the volume of equipment connected to the TUNER OUTPUT connector. Otherwise, noise will be heard when the power is turned on.

2 While holding down the GP button, press the + or – button to select a group.
Each time you press the + or – button, the GP indication changes as shown in the following figure. To change the indication continuously, press and hold down the + or – button.

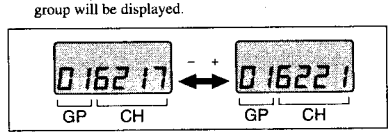


The CH indication shows the lowest frequency channel of the selected group. For group 00, however, the channel selected last is displayed.
Releasing the buttons automatically cancels the group selection mode, and the currently displayed group is selected.
For the CE69 model, the indication will cycle from group 00 through H.

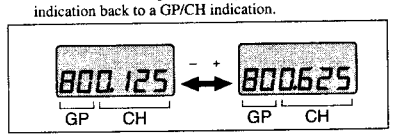
Refer to "Overview of Channel Plan" in the "Wireless Channel Lists" section.

3 While holding down the CH button, press the + or – button to select a channel.

Similar to step **2**, each time you press the + or – button, the CH indication changes in the order shown in the group and reception channel list. *(See "Wireless Channel Lists".)*
If you press the + button when the last channel of the selected group is displayed, the first channel of the group will be displayed.



Selecting the reception channel by frequency
Press the + button.
This changes the GP/CH indication to a frequency indication.
To change a frequency, press the + or – button while keeping the CH button pressed. (A higher or lower frequency will be displayed.)
Press the + button again to change the frequency indication back to a GP/CH indication.

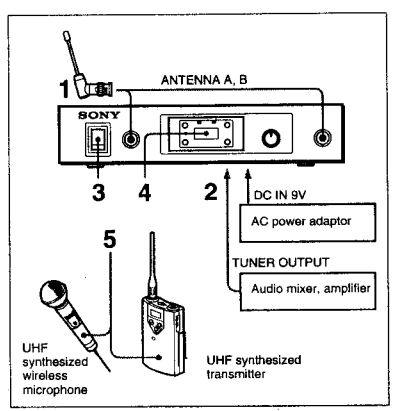


4 If the desired channel or frequency is displayed, release the CH button and + or – button.

The selected channel is set.

To store the selected group and channel
Leave the indication unchanged for 1 second.
The group and channel set in the procedure explained above are stored in memory.

Operation



1 Connect the supplied antennas and make the antenna tips point upward.

2 Connect the supplied AC power adaptor to the DC IN 9V connector and an audio mixer or amplifier to the TUNER OUTPUT connector.

3 Turn the POWER switch on.

Note
Turn the POWER switch on after reducing the volume of the equipment connected to the TUNER OUTPUT connector. Otherwise, noise will be heard when the POWER switch is turned on.

4 Set the reception channel.

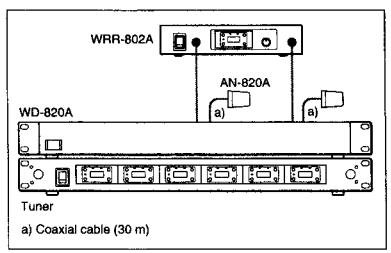
For details on setting the channels, see page 8.

5 Turn on the wireless microphone or transmitter.
Use the wireless microphone or transmitter to which the same channel is assigned as to this unit.

If noise is heard
Depending on the environment where the system is installed, outside noise or radio wave may disrupt the transmission of certain channels.
To select a channel under this circumstance, turn off the wireless microphone or transmitter. Then select a channel at which the RF indicator is off. (A channel free from noise or radio wave interference is selected.) Set the same channel on the microphone or transmitter.

Notes on using with a WD-820A

- This unit does not supply the internal booster of the optional AN-820A UHF Antenna through the ANTENNA A,B connectors. It is impossible to connect the AN-820A directly.
- When adding the WRR-802A by cascade connection to a tuner system containing the WD-820A UHF Antenna Divider, use a coaxial cable (5D-2V, RG-212/U or equivalent) with length of 30 m as shown in the figure.
- To avoid noise, remove the transmitter from the antennas as far as possible when setting the channel or waiting with the transmitter powered.



Notes

- Do not simultaneously use two or more microphones and transmitters that are set to the same channel.
- Separate the reception antennas and the transmitter by more than 3 meters.
- The number of wireless microphone channels actually usable in a multi-channel system may be smaller than the normal capacity of that system if there is interference from TV broadcasting or other RF signals.
- When operating two or more UHF wireless microphone systems using the same wireless channel in the same group, ensure that the systems are at least 100 m[1] apart as far as they are installed within sight of each other.

1) The distance depends on the operating environment and conditions.

Operation

Muting Functions

This unit has the following three muting functions, which work in combination.

(1) Muting by RF input level

As sufficient S/N for the audio output may not be obtained if no RF signal is received or the RF input level is low, the audio output can be muted when the RF input level falls below the muting level.

(2) Tone squelch

The audio output is obtained only when the unit receives an RF signal which includes a specified tone signal. The audio output is muted to eliminate noise which may be heard when the transmitter is turned on/off or the unit receives an interference RF signal.

(3) Noise squelch

The audio output is muted to eliminate noise which may be heard when there is such excessive interference RF signal that the tone squelch does not work.

To turn off the muting functions

While holding down the GP and CH buttons, turn the POWER switch to ON. All indications momentarily appear, *then go off. "OFF" is then displayed.* This procedure cancels all three muting functions at the same time.

To turn on the muting functions

Turn the POWER switch to OFF, then to ON again. The three muting functions are activated at the same time.

Error Messages

Apart from the normal indications, the following error messages may appear on the display.

Message	Meaning	Remedy
Err 01	An error has occurred in the backup memory data.	The memory data is initialized. Reset the group and channel settings.
Err 02	The PLL-synthesized circuit has a malfunction.	Contact your nearest Sony dealer.
NO TONE	As no tone signal is available or a tone signal other than 32.768 kHz is being received, the audio signal output is muted.	Make sure that the transmitter is turned on. If it is, then the problem lies in the transmitter's tone signal generator or the tuner's tone squelch circuit. Contact your nearest Sony dealer.

Specifications

Tuner

Reception type F3E
Circuit system Dual conversion superheterodyne
Reception frequencies
CE62 model: 800.000 to 814.000 MHz
CE69 model: 854.125 to 862.000 MHz
Local oscillators
Crystal controlled PLL synthesizer
Selectivity 60 dB or more (at ±250 kHz detuned)
Spurious rejection ratio
70 dB or more
Image rejection ratio
60 dB or more
Muting level 30 dBμ [1]
Antenna connectors
BNC-R type (2), 50 ohms
Frequency response
100 to 15,000 Hz ±3 dB
De-emphasis 50 μsec
Signal-to-noise ratio
40 dB or more at an A-weighted RF input level of 20 dBμ
60 dB or more at an A-weighted RF input level of 60 dBμ
(±5 kHz deviation at 1 kHz modulation)
Distortion 1% or less (±40 kHz deviation at 1 kHz modulation)
Tone signal frequency
32.768 kHz
Output level −20 dBm[2] or −58 dBm (±5 kHz deviation at 1 kHz modulation)
Output impedance
150 ohms
Output connector
ø6.3 phone balanced (TRS)
XLR-3-12C

1) 0 dBμ=1 μV
2) 0 dBm=0.775 Vrms (600 ohms loaded)

General

Power requirements
9 V DC
Current consumption
Approx. 600 mA
Operating temperature
0°C to 40°C
Storage temperature
−20°C to +55°C
Dimensions 218 × 44 × 210 mm (w/h/d)
Mass Approx. 1.6 kg
Accessories supplied
AC power adaptor (1)
Antennas (2)
Operating Instructions (1)

Design and specifications are subject to change without notice.

Wireless Channel Lists / Übertragungskanallisten

Overview of Channel Plan / Überblick über die Kanäle

Guidance on use of multi-channel system

This product is designed to give excellent interference free operation in multi-channel systems. To maintain this, Sony recommends that one of the original Sony groups, number 01, 02, 03, 04, 13, L1, L2, M1 or M2 is selected.
These groups will offer excellent performance free from mutual interference from other Sony wireless microphone transmitters in the selected group when used under the recommended operating conditions. The remaining groups are included for compliance with frequency regulations in various countries, and will not always guarantee interference free operation.
Group 00 is used to scan for open channels, or to use only for a one channel system.

Richtlinien für ein Mehrkanalsystem

Dieses Produkt wurde im Hinblick auf hervorragenden interferenzfreien Betrieb in Mehrkanalsystemen entwickelt. Deshalb empfehlen wir, eine der Sony-Kanalgruppen. Nummer 01, 02, 03, 04, 13, L1, L2, M1 oder M2 auszuwählen.
Bei diesen Gruppen erzielen Sie eine außerordentliche Leistung ohne gegenseitige interferenzen durch andere schnurlose Mikrofonsender von Sony in der ausgewählten Gruppe, vorausgesetzt, die empfohlenen Betriebsbedingungen werden eingehalten. Bei den übrigen Gruppen gelten die Frequenzbestimmungen in verschiedenen Ländern, und ein interferenzfreier Betrieb kann nicht immer gewährleistet werden.
Gruppe 00 dient zum Durchsuchen offener Kanäle bzw. eignet sich für ein Einkanalsystem.

Wireless Channel Lists / Übertragungskanallisten

Model Modell	Group indication Gruppe-Anzeige	Frequency grid Frequenz-raster	User group Benutzer-gruppe	No. of simultaneously selectable channels Anzahl der Simultankanäle
CE62	00	125 kHz	Sony original channel groups Sony Kanal-gruppen	*(111)
	01			8
	02			9
	03			8
	04			10
	13			12
	L1			8
	L2			
	M1			
	M2			
	62A	25 kHz	German-3 Deutsch-3	*(7)
	62B			*(8)
	62C			*(7)
	62D			*(7)
	62E		German-4 Deutsch-4	*(10)
	63A		German-3 Deutsch-3	*(10)
	63B			*(12)
	63C			*(10)
	63D			*(10)
	63E		German-4 Deutsch-4	*(11)
	62		German Deutsch	*(241)
	63			*(320)

Model Modell	Group indication Gruppe-Anzeige	Frequency grid Frequenz-raster	User group Benutzer-gruppe	No. of simultaneously selectable channels Anzahl der Simultankanäle
CE69	00	125 kHz	Sony original channel groups Sony Kanal-gruppen	*(64)
	01			10
	L	25 kHz	UK General Use Allgemaine Verbandung in Groß-britannien	*(7)
	H			*(7)

German = German User Groups
Deutsch = Deutsche Benutzergruppen

*-marked number means a total number of selectable channels (not simultaneously).
Die Anzahl der insgesamt wählbaren Kanäle sind mit einem Stern (*) gekennzeichnet.

Wireless Channel Lists / Übertragungskanallisten

Group 01/Gruppe 01
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-17	800.125
62-21	800.625
62-32	802.000
62-50	804.250
63-10	807.250
63-12	807.500
63-31	809.875
63-58	813.250

Group 02/Gruppe 02
9-channel group
9-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-18	800.250
62-23	800.875
62-46	803.750
62-56	805.000
62-59	805.375
63-14	807.750
63-22	808.750
63-29	809.625
63-38	810.750

Group 03/Gruppe 03
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-19	800.375
62-30	801.750
62-38	802.750
62-58	805.250
63-08	807.000
63-25	809.125
63-41	811.125
63-62	813.750

Group 04/Gruppe 04
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-20	800.500
62-22	800.750
62-25	801.125
62-29	801.625
62-35	802.375
62-47	803.875
63-06	806.750
63-27	809.375
63-43	811.375
63-60	813.500

Group 13/Gruppe 13
12-channel group
12-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-17	800.125
62-22	800.750
62-32	802.000
62-34	802.250
62-50	804.250
62-58	805.250
63-15	807.875
63-26	809.250
63-40	811.000
63-46	811.750
63-49	812.125
63-53	812.625

Group L1/Gruppe L1
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-19	800.375
62-21	800.625
62-27	801.375
62-32	802.000
62-42	803.250
62-51	804.375
62-54	804.750
62-58	805.250

Group L2/Gruppe L2
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-22	800.750
62-24	801.000
62-28	801.500
62-38	802.750
62-41	803.125
62-49	804.125
62-56	805.000
62-61	805.625

WL Channel = Wireless Channel
WL-Kanal = Übertragungskanal

CE62 Model / Modell CE62

Sony Original Channel Groups / Sony Kanalgruppen

GP/CH indication (example) / GP/CH-Anzeige (Beispiel): 00.62 17

Group 00: 111-channel group (single-channel operation) / **Gruppe 00:** 111-Kanal-Gruppe (Einkanalbetrieb)

TV-62 Band/TV-62-Frequenzbereich				TV-63 Band/TV-63-Frequenzbereich					
WL Channel WL-Kanal	Frequency Frequenz(MHz)	WL Channel WL-Kanal	Frequency Frequenz(MHz)	WL Channel WL-Kanal	Frequency Frequenz(MHz)	WL Channel WL-Kanal	Frequency Frequenz(MHz)	WL Channel WL-Kanal	Frequency Frequenz(MHz)
62-17	800.125	62-41	803.125	63-00	806.000	63-24	809.000	63-48	812.000
62-18	800.250	62-42	803.250	63-01	806.125	63-25	809.125	63-49	812.125
62-19	800.375	62-43	803.375	63-02	806.250	63-26	809.250	**63-50**	**812.250**
62-20	**800.500**	62-44	803.500	63-03	806.375	63-27	809.375	63-51	812.375
62-21	800.625	62-45	803.625	63-04	806.500	63-28	809.500	63-52	812.500
62-22	800.750	62-46	803.750	63-05	806.625	63-29	809.625	63-53	812.625
62-23	800.875	62-47	803.875	63-06	806.750	**63-30**	**809.750**	63-54	812.750
62-24	801.000	62-48	804.000	63-07	806.875	63-31	809.875	63-55	812.875
62-25	801.125	62-49	804.125	63-08	807.000	63-32	810.000	63-56	813.000
62-26	801.250	**62-50**	**804.250**	63-09	807.125	63-33	810.125	63-57	813.125
62-27	801.375	62-51	804.375	**63-10**	**807.250**	63-34	810.250	63-58	813.250
62-28	801.500	62-52	804.500	63-11	807.375	63-35	810.375	63-59	813.375
62-29	801.625	62-53	804.625	63-12	807.500	63-36	810.500	**63-60**	**813.500**
62-30	**801.750**	62-54	804.750	63-13	807.625	63-37	810.625	63-61	813.625
62-31	801.875	62-55	804.875	63-14	807.750	63-38	810.750	63-62	813.750
62-32	802.000	62-56	805.000	63-15	807.875	63-39	810.875	63-63	813.875
62-33	802.125	62-57	805.125	63-16	808.000	**63-40**	**811.000**		
62-34	802.250	62-58	805.250	63-17	808.125	63-41	811.125		
62-35	802.375	62-59	805.375	63-18	808.250	63-42	811.250		
62-36	802.500	**62-60**	**805.500**	63-19	808.375	63-43	811.375		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
62-38	802.750	62-62	805.750	63-21	808.625	63-45	811.625		
62-39	802.875	62-63	805.875	63-22	808.750	63-46	811.750		
62-40	**803.000**			63-23	808.875	63-47	811.875		

WL Channel = Wireless Channel / WL-Kanal = Übertragungskanal

Group M1/Gruppe M1
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-11	807.375
63-13	807.625
63-19	808.375
63-24	809.000
63-34	810.250
63-43	811.375
63-46	811.750
63-50	812.250

Group M2/Gruppe M2
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-14	807.750
63-16	808.000
63-20	808.500
63-30	809.750
63-33	810.125
63-41	811.125
63-48	812.000
63-53	812.625

German User Group-3
Deutsche Benutzergruppe-3

GP/CH indication (example) / GP/CH-Anzeige (Beispiel):
62A 04

Group 62A/Gruppe 62A
7-channel group
7-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-A04	800.325
62-A05	800.900
62-A06	801.725
62-A07	802.825
62-A08	803.350
62-A09	804.100
62-A10	804.575

Group 62B/Gruppe 62B
8-channel group
8-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-B05	800.375
62-B06	800.950
62-B07	801.775
62-B08	802.875
62-B09	803.400
62-B10	804.150
62-B11	804.625
62-B12	805.600

Group 62C/Gruppe 62C
7-channel group
7-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-C04	800.425
62-C05	801.000
62-C06	801.825
62-C07	802.925
62-C08	803.450
62-C09	804.675
62-C10	805.650

Group 62D/Gruppe 62D
7-channel group
7-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-D04	800.475
62-D05	801.050
62-D06	801.875
62-D07	802.975
62-D08	803.500
62-D09	804.725
62-D10	805.700

Wireless Channel Lists / Übertragungskanallisten

Group 63A/Gruppe 63A
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-A01	806.250
63-A02	807.200
63-A03	807.900
63-A04	808.325
63-A05	808.900
63-A06	809.725
63-A07	810.825
63-A08	811.350
63-A09	812.100
63-A10	812.575

Group 63B/Gruppe 63B
12-channel group
12-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-B01	806.300
63-B02	806.700
63-B03	807.250
63-B04	807.950
63-B05	808.375
63-B06	808.950
63-B07	809.775
63-B08	810.875
63-B09	811.400
63-B10	812.150
63-B11	812.625
63-B12	813.600

Group 63C/Gruppe 63C
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-C01	806.350
63-C02	806.750
63-C03	807.300
63-C04	808.425
63-C05	809.000
63-C06	809.825
63-C07	810.925
63-C08	811.450
63-C09	812.675
63-C10	813.650

Group 63D/Gruppe 63D
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-D01	806.400
63-D02	806.800
63-D03	807.350
63-D04	808.475
63-D05	809.050
63-D06	809.875
63-D07	810.975
63-D08	811.500
63-D09	812.725
63-D10	813.700

German User Group-4
Deutsche Benutzergruppe-4

GP/CH indication (example) / GP/CH-Anzeige (Beispiel): 62E 02

Group 62E/Gruppe 62E
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-E02	800.525
62-E03	801.100
62-E04	801.425
62-E05	801.975
62-E06	802.575
62-E07	803.050
62-E08	803.700
62-E09	804.800
62-E10	805.050
62-E11	805.775

Group 63E/Gruppe 63E
11-channel group
11-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-E01	806.850
63-E02	808.525
63-E03	809.100
63-E04	809.425
63-E05	809.975
63-E06	810.575
63-E07	811.050
63-E08	811.700
63-E09	812.800
63-E10	813.050
63-E11	813.775

Wireless Channel Lists / Übertragungskanallisten

WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-188	802.700	62-222	803.550	62-256	804.400	**62-290**	**805.250**
62-189	802.725	62-223	803.575	62-257	804.425	62-291	805.275
62-190	**802.750**	62-224	803.600	62-258	804.450	62-292	805.300
62-191	802.775	62-225	803.625	62-259	804.475	62-293	805.325
62-192	802.800	62-226	803.650	**62-260**	**804.500**	62-294	805.350
62-193	802.825	62-227	803.675	62-261	804.525	62-295	805.375
62-194	802.850	62-228	803.700	62-262	804.550	62-296	805.400
62-195	802.875	62-229	803.725	62-263	804.575	62-297	805.425
62-196	802.900	**62-230**	**803.750**	62-264	804.600	62-298	805.450
62-197	802.925	62-231	803.775	62-265	804.625	62-299	805.475
62-198	802.950	62-232	803.800	62-266	804.650	**62-300**	**805.500**
62-199	802.975	62-233	803.825	62-267	804.675	62-301	805.525
62-200	**803.000**	62-234	803.850	62-268	804.700	62-302	805.550
62-201	803.025	62-235	803.875	62-269	804.725	62-303	805.575
62-202	803.050	62-236	803.900	**62-270**	**804.750**	62-304	805.600
62-203	803.075	62-237	803.925	62-271	804.775	62-305	805.625
62-204	803.100	62-238	803.950	62-272	804.800	62-306	805.650
62-205	803.125	62-239	803.975	62-273	804.825	62-307	805.675
62-206	803.150	**62-240**	**804.000**	62-274	804.850	62-308	805.700
62-207	803.175	62-241	804.025	62-275	804.875	62-309	805.725
62-208	803.200	62-242	804.050	62-276	804.900	**62-310**	**805.750**
62-209	803.225	62-243	804.075	62-277	804.925	62-311	805.775
62-210	**803.250**	62-244	804.100	62-278	804.950	62-312	805.800
62-211	803.275	62-245	804.125	62-279	804.975	62-313	805.825
62-212	803.300	62-246	804.150	**62-280**	**805.000**	62-314	805.850
62-213	803.325	62-247	804.175	62-281	805.025	62-315	805.875
62-214	803.350	62-248	804.200	62-282	805.050	62-316	805.900
62-215	803.375	62-249	804.225	62-283	805.075	62-317	805.925
62-216	803.400	**62-250**	**804.250**	62-284	805.100	62-318	805.950
62-217	803.425	62-251	804.275	62-285	805.125	62-319	805.975
62-218	803.450	62-252	804.300	62-286	805.150	**62-320**	**806.000**
62-219	803.475	62-253	804.325	62-287	805.175		
62-220	**803.500**	62-254	804.350	62-288	805.200		
62-221	803.525	62-255	804.375	62-289	805.225		

German User Groups / Deutsche Benutzergruppen

GP/CH indication (example) / GP/CH-Anzeige (Beispiel): 62 080

Group 62: 241-channel group (single-channel operation) / **Gruppe 62:** 241-Kanal-Gruppe (Einkanalbetrieb)
Frequency range: 800.000 to 806.000 MHz / Frequenzbereich: 800,000 bis 806,000 MHz

WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
62-080	**800.000**	62-107	800.675	62-134	801.350	62-161	802.025
62-081	800.025	62-108	800.700	62-135	801.375	62-162	802.050
62-082	800.050	62-109	800.725	62-136	801.400	62-163	802.075
62-083	800.075	**62-110**	**800.750**	62-137	801.425	62-164	802.100
62-084	800.100	62-111	800.775	62-138	801.450	62-165	802.125
62-085	800.125	62-112	800.800	62-139	801.475	62-166	802.150
62-086	800.150	62-113	800.825	**62-140**	**801.500**	62-167	802.175
62-087	800.175	62-114	800.850	62-141	801.525	62-168	802.200
62-088	800.200	62-115	800.875	62-142	801.550	62-169	802.225
62-089	800.225	62-116	800.900	62-143	801.575	**62-170**	**802.250**
62-090	**800.250**	62-117	800.925	62-144	801.600	62-171	802.275
62-091	800.275	62-118	800.950	62-145	801.625	62-172	802.300
62-092	800.300	62-119	800.975	62-146	801.650	62-173	802.325
62-093	800.325	**62-120**	**801.000**	62-147	801.675	62-174	802.350
62-094	800.350	62-121	801.025	62-148	801.700	62-175	802.375
62-095	800.375	62-122	801.050	62-149	801.725	62-176	802.400
62-096	800.400	62-123	801.075	**62-150**	**801.750**	62-177	802.425
62-097	800.425	62-124	801.100	62-151	801.775	62-178	802.450
62-098	800.450	62-125	801.125	62-152	801.800	62-179	802.475
62-099	800.475	62-126	801.150	62-153	801.825	**62-180**	**802.500**
62-100	**800.500**	62-127	801.175	62-154	801.850	62-181	802.525
62-101	*800.525*	*62-128*	*801.200*	*62-155*	*801.875*	62-182	802.550
62-102	800.550	62-129	801.225	62-156	801.900	62-183	802.575
62-103	800.575	**62-130**	**801.250**	62-157	801.925	62-184	802.600
62-104	800.600	62-131	801.275	62-158	801.950	62-185	802.625
62-105	800.625	62-132	801.300	62-159	801.975	62-186	802.650
62-106	800.650	62-133	801.325	**62-160**	**802.000**	62-187	802.675

GP/CH indication (example) / GP/CH-Anzeige (Beispiel): 63 001

Group 63: 320-channel group (single-channel operation) / **Gruppe 63:** 320-Kanal-Gruppe (Einkanalbetrieb)
Frequency range: 806.025 to 814.000 MHz / Frequenzbereich: 806,025 bis 814,000 MHz

WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-001	806.025	63-031	806.775	63-061	807.525	63-091	808.275
63-002	806.050	63-032	806.800	63-062	807.550	63-092	808.300
63-003	806.075	63-033	806.825	63-063	807.575	63-093	808.325
63-004	806.100	63-034	806.850	63-064	807.600	63-094	808.350
63-005	806.125	63-035	806.875	63-065	807.625	63-095	808.375
63-006	806.150	63-036	806.900	63-066	807.650	63-096	808.400
63-007	806.175	63-037	806.925	63-067	807.675	63-097	808.425
63-008	806.200	63-038	806.950	63-068	807.700	63-098	808.450
63-009	806.225	63-039	806.975	63-069	807.725	63-099	808.475
63-010	**806.250**	**63-040**	**807.000**	**63-070**	**807.750**	**63-100**	**808.500**
63-011	806.275	63-041	807.025	63-071	807.775	63-101	808.525
63-012	806.300	63-042	807.050	63-072	807.800	63-102	808.550
63-013	806.325	63-043	807.075	63-073	807.825	63-103	808.575
63-014	806.350	63-044	807.100	63-074	807.850	63-104	808.600
63-015	806.375	63-045	807.125	63-075	807.875	63-105	808.625
63-016	806.400	63-046	807.150	63-076	807.900	63-106	808.650
63-017	806.425	63-047	807.175	63-077	807.925	63-107	808.675
63-018	806.450	63-048	807.200	63-078	807.950	63-108	808.700
63-019	806.475	63-049	807.225	63-079	807.975	63-109	808.725
63-020	**806.500**	**63-050**	**807.250**	**63-080**	**808.000**	**63-110**	**808.750**
63-021	806.525	63-051	807.275	63-081	808.025	63-111	808.775
63-022	806.550	63-052	807.300	63-082	808.050	63-112	808.800
63-023	806.575	63-053	807.325	63-083	808.075	63-113	808.825
63-024	806.600	63-054	807.350	63-084	808.100	63-114	808.850
63-025	806.625	63-055	807.375	63-085	808.125	63-115	808.875
63-026	806.650	63-056	807.400	63-086	808.150	63-116	808.900
63-027	806.675	63-057	807.425	63-087	808.175	63-117	808.925
63-028	806.700	63-058	807.450	63-088	808.200	63-118	808.950
63-029	806.725	63-059	807.475	63-089	808.225	63-119	808.975
63-030	**806.750**	**63-060**	**807.500**	**63-090**	**808.250**	**63-120**	**809.000**

Wireless Channel Lists / Übertragungskanallisten

WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-121	809.025	63-155	809.875	63-189	810.725	63-223	811.575
63-122	809.050	63-156	809.900	**63-190**	**810.750**	63-224	811.600
63-123	809.075	63-157	809.925	63-191	810.775	63-225	811.625
63-124	809.100	63-158	809.950	63-192	810.800	63-226	811.650
63-125	809.125	63-159	809.975	63-193	810.825	63-227	811.675
63-126	809.150	**63-160**	**810.000**	63-194	810.850	63-228	811.700
63-127	809.175	63-161	810.025	63-195	810.875	63-229	811.725
63-128	809.200	63-162	810.050	63-196	810.900	**63-230**	**811.750**
63-129	809.225	63-163	810.075	63-197	810.925	63-231	811.775
63-130	**809.250**	63-164	810.100	63-198	810.950	63-232	811.800
63-131	809.275	63-165	810.125	63-199	810.975	63-233	811.825
63-132	809.300	63-166	810.150	**63-200**	**811.000**	63-234	811.850
63-133	809.325	63-167	810.175	63-201	811.025	63-235	811.875
63-134	809.350	63-168	810.200	63-202	811.050	63-236	811.900
63-135	809.375	63-169	810.225	63-203	811.075	63-237	811.925
63-136	809.400	**63-170**	**810.250**	63-204	811.100	63-238	811.950
63-137	809.425	63-171	810.275	63-205	811.125	63-239	811.975
63-138	809.450	63-172	810.300	63-206	811.150	**63-240**	**812.000**
63-139	809.475	63-173	810.325	63-207	811.175	63-241	812.025
63-140	**809.500**	63-174	810.350	63-208	811.200	63-242	812.050
63-141	809.525	63-175	810.375	63-209	811.225	63-243	812.075
63-142	809.550	63-176	810.400	**63-210**	**811.250**	63-244	812.100
63-143	809.575	63-177	810.425	63-211	811.275	63-245	812.125
63-144	809.600	63-178	810.450	63-212	811.300	63-246	812.150
63-145	809.625	63-179	810.475	63-213	811.325	63-247	812.175
63-146	809.650	**63-180**	**810.500**	63-214	811.350	63-248	812.200
63-147	809.675	63-181	810.525	63-215	811.375	63-249	812.225
63-148	809.700	63-182	810.550	63-216	811.400	**63-250**	**812.250**
63-149	809.725	63-183	810.575	63-217	811.425	63-251	812.275
63-150	**809.750**	63-184	810.600	63-218	811.450	63-252	812.300
63-151	809.775	63-185	810.625	63-219	811.475	63-253	812.325
63-152	809.800	63-186	810.650	**63-220**	**811.500**	63-254	812.350
63-153	809.825	63-187	810.675	63-221	811.525	63-255	812.375
63-154	809.850	63-188	810.700	63-222	811.550	63-256	812.400

WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
63-257	812.425	63-291	813.275
63-258	812.450	63-292	813.300
63-259	812.475	63-293	813.325
63-260	**812.500**	63-294	813.350
63-261	812.525	63-295	813.375
63-262	812.550	63-296	813.400
63-263	812.575	63-297	813.425
63-264	812.600	63-298	813.450
63-265	812.625	63-299	813.475
63-266	812.650	**63-300**	**813.500**
63-267	812.675	63-301	813.525
63-268	812.700	63-302	813.550
63-269	812.725	63-303	813.575
63-270	**812.750**	63-304	813.600
63-271	812.775	63-305	813.625
63-272	812.800	63-306	813.650
63-273	812.825	63-307	813.675
63-274	812.850	63-308	813.700
63-275	812.875	63-309	813.725
63-276	812.900	**63-310**	**813.750**
63-277	812.925	63-311	813.775
63-278	812.950	63-312	813.800
63-279	812.975	63-313	813.825
63-280	**813.000**	63-314	813.850
63-281	813.025	63-315	813.875
63-282	813.050	63-316	813.900
63-283	813.075	63-317	813.925
63-284	813.100	63-318	813.950
63-285	*813.125*	*63-319*	*813.975*
63-286	813.150	**63-320**	**814.000**
63-287	813.175		
63-288	813.200		
63-289	*813.225*		
63-290	**813.250**		

Wireless Channel Lists / Übertragungskanallisten

CE69 Model / Modell CE69

Sony Original Channel Groups / Sony Kanalgruppen

GP/CH indication (example) / GP/CH-Anzeige (Beispiel): 00690 1

Group 00: 64-channel group (single-channel operation) / **Gruppe 00:** 64-Kanal-Gruppe (Einkanalbetrieb)

TV-69 Band / TV-69-Frequenzbereich					
WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)	WL Channel WL-Kanal	Frequency Frequenz (MHz)
69-01	854.125	69-23	856.875	69-45	859.625
69-02	854.250	69-24	857.000	69-46	859.750
69-03	854.375	69-25	857.125	69-47	859.875
69-04	854.500	69-26	857.250	69-48	860.000
69-05	854.625	69-27	857.375	69-49	860.125
69-06	854.750	69-28	857.500	**69-50**	**860.250**
69-07	854.875	69-29	857.625	69-51	860.375
69-08	855.000	**69-30**	**857.750**	69-52	860.500
69-09	855.125	69-31	857.875	69-53	860.625
69-10	**855.250**	69-32	858.000	69-54	860.750
69-11	855.375	69-33	858.125	69-55	860.875
69-12	855.500	69-34	858.250	69-56	861.000
69-13	855.625	69-35	858.375	69-57	861.125
69-14	855.750	69-36	858.500	69-58	861.250
69-15	855.875	69-37	858.625	69-59	861.375
69-16	856.000	69-38	858.750	**69-60**	**861.500**
69-17	856.125	69-39	858.875	69-61	861.625
69-18	856.250	**69-40**	**859.000**	69-62	861.750
69-19	856.375	69-41	859.125	69-63	861.875
69-20	**856.500**	69-42	859.250	69-64	862.000
69-21	856.625	69-43	859.375		
69-22	856.750	69-44	859.500		

Group 01/Gruppe 01
10-channel group
10-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
69-01	854.125
69-03	854.375
69-07	854.875
69-18	856.250
69-27	857.375
69-34	858.250
69-46	859.750
69-56	861.000
69-59	861.375
69-64	862.000

UK General Use Groups
Gruppen für allgem. Verwendung in Großbritannien

GP/CH indication (example) / GP/CH-Anzeige (Beispiel):
L 050 1

Group L/Gruppe L
7-channel group
7-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
UG-01	854.900
UG-02	855.275
UG-03	855.900
UG-04	856.175
UG-05	856.575
UG-06	857.625
UG-07	857.950

Group H/Gruppe H
7-channel group
7-Kanal-Gruppe

WL Channel WL-Kanal	Frequency Frequenz (MHz)
UG-08	858.200
UG-09	858.650
UG-10	860.400
UG-11	860.900
UG-12	861.200
UG-13	861.550
UG-14	861.750

SONY

3-867-234-31 (1)

UHF Synthesized Diversity Tuner

Operating Instructions

WRR-802A

© 1999 by Sony Corporation

AU66

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Overview

The WRR-802A is a reliable UHF synthesized diversity tuner for the 800-MHz-band Sony UHF wireless microphone system which uses the frequency bands allocated for UHF TV broadcasting.
This unit is designed to enable simultaneous use of multiple channels when channels are selected according to the Sony channel plan.

Features

Phase Locked Loop (PLL) synthesized system

The WRR-802A has a refined phase locked loop (PLL) synthesizer circuit and covers two UHF TV channels. It operates on 102 channels over a 14-MHz frequency.

Preprogrammed wireless channel plan for simultaneous multichannel operation

The WRR-802A has many preprogrammed, easily settable channels in a simultaneous multichannel operation. One group allows setting of 102 channels. The unit also has 12 preset groups of channels, each of which permits , simultaneous operation of 5, 6, 8, 9 or 12 channels without the effects of intermodulation.

Precautions

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

On operation

- The unit must be used within a temperature range of 0°C to 40°C (32°F to 104°F). Avoid using the unit for extended periods at extremely high temperatures or placing it in direct sunlight, especially outdoors because this may damage the finish of the case. Never install the unit on or near a heat source, such as lighting equipment or power amplifiers.
- Avoid using in very humid or dusty places, because such use may shorten the life of the unit.
- To avoid degradation of the signal-to-noise ratio, do not use the unit in noisy places or in locations subject to vibration, such as the following:
  — near electrical equipment, such as motors, transformers or dimmers
  — near air conditioning equipment or places subject to direct air flow from an air conditioner
  — near public address loudspeakers
  — where adjacent equipment might knock against the unit
- Switching lights on or off may produce electrical interference over the entire frequency range. Position the unit and the wireless microphones so that interference is minimized.
- The unit is precisely adjusted at the factory and no adjustment before use is necessary. Do not touch the inside of the unit or try to repair it by yourself.

On cleaning

Clean the unit with a dry, soft cloth. Never use thinner, benzene, alcohol or any other chemicals, since these may damage the finish.

Versatile display

A liquid-crystal display provides a variety of information, including the levels of the reception channels, RF information and transmitter battery condition.

Space diversity reception system

The WRR-802A provides stable signal reception with minimum dropout.

Tone squelch circuit for noise elimination

A built-in squelch circuit eliminates noise and signal interference when the WRR-802A is in signal reception standby mode.

Compander system

A compander (compressor/expander) system enables stabilized wireless transmission over a wide dynamic range.

Adjustable audio output level

You can adjust the audio output level by volume.

System Configuration

The unit can be used with a Sony UHF synthesized wireless microphone or UHF synthesized transmitter among the models listed in the table below.

Sony 800 MHz-band system models

Frequency band		Model name	
TV channel	Frequency (MHz)	Transmitter or microphone	Tuner
66	792.250 to 798.500	WRT-805A (66) WRT-807A (66) WRT-810A (66) WRT-820A (66)	WRR-805A (66) WRR-802A (66) MB-806A with WRU-806A (66)
67	799.250 to 805.500	WRT-822A (66) WRT-830A (66) WRT-860A (66) WRT-867A (66)	WRR-810A (66) WRR-820A (66) WRR-840A (66) WRR-850A (66) WRR-855A (66) WRR-860A (66)

Wirelss Channels Selectable

The unit stores 13 groups of selectable channels:
groups 00 (102 channels), 11 (12 channels), 12 (9 channels), 13 (9 channels), A1 (8 channels), A2 (6 channels), A3 (6 channels), L1 (6 channels), L2 (6 channels), M1 (6 channels), M2 (5 channels), H1 (8 channels) and H2 (8 channels).
Channel groups other than group 00 are designed so that all channels of one group can be used simultaneously within the same UHF wireless microphone system without causing intermodulation. It is therefore recommended that you usually use a channel group other than group 00 unless the use of group 00 is specifically necessary.
Each "wireless channel" is represented by a 2-digit TV channel number and a 2-digit number, for example: 66-23.

Wireless Channel Lists

Group 00: All channel access
Use only for a one-channel system or to scan for open channels.

WL Channel	Frequency (MHz)	WL Channel	Frequency (MHz)
66-01	792.250	66-27	795.500
66-02	792.375	66-28	795.625
66-03	792.500	66-29	795.750
66-04	792.625	66-30	795.875
66-05	792.750	66-31	796.000
66-06	792.875	66-32	796.125
66-07	793.000	66-33	796.250
66-08	793.125	66-34	796.375
66-09	793.250	66-35	796.500
66-10	793.375	66-36	796.625
66-11	793.500	66-37	796.750
66-12	793.625	66-38	796.875
66-13	793.750	66-39	797.000
66-14	793.875	66-40	797.125
66-15	794.000	66-41	797.250
66-16	794.125	66-42	797.375
66-17	794.250	66-43	797.500
66-18	794.375	66-44	797.625
66-19	794.500	66-45	797.750
66-20	794.625	66-46	797.875
66-21	794.750	66-47	798.000
[illegible]	[illegible]	[illegible]	[illegible]
66-23	795.000	66-49	798.250
66-24	795.125	66-50	798.375
66-25	795.250	66-51	798.500
66-26	795.375		

Channel	Frequency (MHz)	Channel	Frequency (MHz)
67-01	799.250	67-27	802.500
67-02	799.375	67-28	802.625
67-03	799.500	67-29	802.750
67-04	799.625	67-30	802.875
67-05	799.750	67-31	803.000
67-06	799.875	67-32	803.125
67-07	800.000	67-33	803.250
67-08	800.125	67-34	803.375
67-09	800.250	67-35	803.500
67-10	800.375	67-36	803.625
67-11	800.500	67-37	803.750
67-12	800.625	67-38	803.875
67-13	800.750	67-39	804.000
67-14	800.875	67-40	804.125
67-15	801.000	67-41	804.250
67-16	801.125	67-42	804.375
67-17	801.250	67-43	804.500
67-18	801.375	67-44	804.625
67-19	801.500	67-45	804.750
67-20	801.625	67-46	804.875
67-21	801.750	67-47	805.000
[illegible]	[illegible]	[illegible]	[illegible]
67-23	802.000	67-49	805.250
67-24	802.125	67-50	805.375
67-25	802.250	67-51	805.500
67-26	802.375		

Group 11: 12-channel group
Use when TV channels both 66 and 67 are available.

WL Channel	Frequency (MHz)
66-02	792.375
66-07	793.000
66-17	794.250
66-19	794.500
66-35	796.500
66-43	797.500
67-08	800.125
67-19	801.500
67-33	803.250
67-39	804.000
67-42	804.375
67-46	804.875

Group 12: 9-channel group
Use when TV channel 66 is on the air.

WL Channel	Frequency (MHz)
67-01	799.250
67-03	799.500
67-11	800.500
67-16	801.125
67-23	802.000
67-27	802.500
67-41	804.250
67-44	804.625
67-50	805.375

Group 13: 9-channel group
Use when TV channel 67 is on the air.

WL Channel	Frequency (MHz)
66-01	792.250
66-03	792.500
66-11	793.500
66-16	794.125
66-23	795.000
66-27	795.500
66-41	797.250
66-44	797.625
66-50	798.375

Group A1: 8-channel group
Use when both TV channels 66 and 67 are available.

WL Channel	Frequency (MHz)
66-02	792.375
66-04	792.625
66-12	793.625
66-24	795.125
67-02	799.375
67-29	802.750
67-35	803.500
67-44	804.625

Group A2: 6-channel group
Use when TV channel 66 is on the air.

WL Channel	Frequency (MHz)
67-06	799.875
67-15	801.000
67-21	801.750
67-32	803.125
67-46	804.875
67-50	805.375

Group A3: 6-channel group
Use when TV channel 67 is on the air.

WL Channel	Frequency (MHz)
66-06	792.875
66-15	794.000
66-21	794.750
66-32	796.125
66-46	797.875
66-50	798.375

Group L1: 6-channel group
Use when TV channel 67 is on the air.

WL Channel	Frequency (MHz)
66-01	792.250
66-03	792.500
66-09	793.250
66-14	793.875
66-18	794.375
66-21	794.750

Group M1: 6-channel group
Use when TV channel 67 is on the air.

WL Channel	Frequency (MHz)
66-31	796.000
66-33	796.500
66-39	797.000
66-44	797.625
66-48	798.125
66-51	798.500

Group H1: 8-channel group
Use when TV channel 66 is on the air.

WL Channel	Frequency (MHz)
67-03	799.500
67-05	799.750
67-11	800.500
67-16	801.125
67-26	802.375
67-35	803.500
67-38	803.875
67-42	804.375

Group L2: 6-channel group
Use when TV channel 67 is on the air.

WL Channel	Frequency (MHz)
66-02	792.375
66-04	792.625
66-10	793.375
66-15	794.000
66-19	794.500
66-22	794.875

Group M2: 5-channel group
Use when TV channel 67 is on the air.

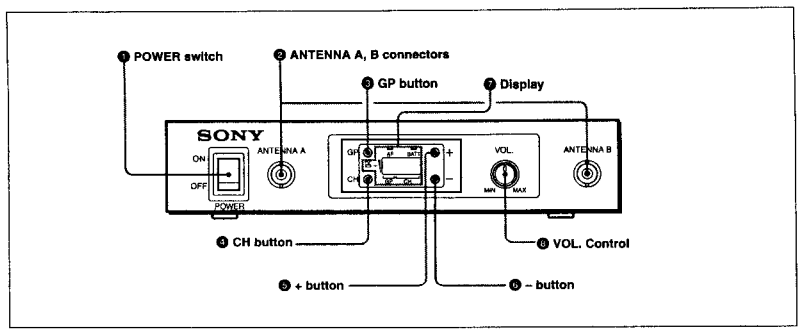
WL Channel	Frequency (MHz)
66-32	796.125
66-34	796.375
66-40	797.125
66-45	797.750
66-49	798.250

Group H2: 8-channel group
Use when TV channel 66 is on the air.

WL Channel	Frequency (MHz)
67-06	799.875
67-08	800.125
67-12	800.625
67-22	801.875
67-25	802.250
67-33	803.250
67-40	804.125
67-45	804.750

Location of Parts and Controls

Front Panel



❶ POWER switch
Turns the power on and off.

❷ ANTENNA A, B (antenna A, B) connectors (BNC type)
Connect the supplied antennas.
The DC power voltage is not output from the antenna connector.

❸ GP (group) button
To change the group, press the + or – button while holding this button down.

❹ CH (channel) button
To change the channel in a group, press the + or – button while holding this button down.

❺ + button
To go to a higher group or channel, press this button while holding the GP or CH button.
Press this button changes the indication from GP/CH to frequency.

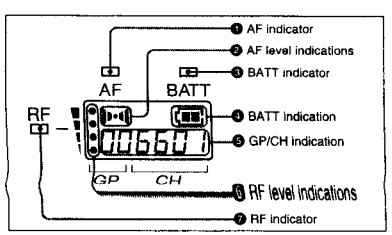
❻ – button
To go to a lower group or channel, press this button while holding the GP or CH button.

❼ Display
Displays the status of the tuner and the group and channel assigned to the unit.

For details, see the following section "Display".

❽ VOL. (volume) control
Adjusts the volume of the tuner output.

Display



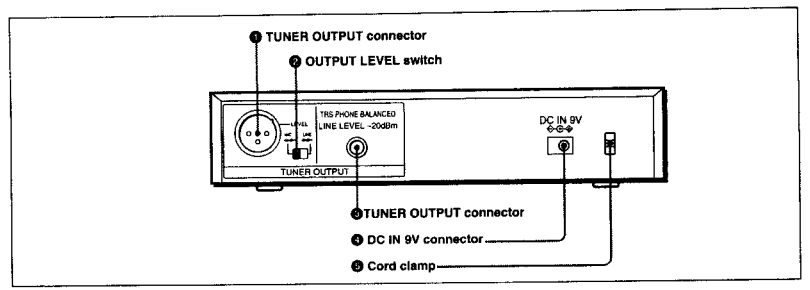
❶ AF (audio frequency) indicator
❷ AF (audio frequency) level indications
The indicator lights and the indications appear when the audio output level is higher than the reference level.

❸ BATT (battery) indicator
❹ BATT (battery) indication
Indicate the condition of the wireless microphone transmitter batteries. The indicator and indication appear and start flashing about one hour before the transmitter batteries go flat. The time at which flashing begins will depend on the type of battery used in the transmitter, and its condition.

❺ GP/CH (group/channel) indication
Shows the reception channel group and respective channel number.
Pressing the + button changes this indication to the frequency indication.

❻ RF (radio frequency) level indications
❼ RF (radio frequency) indicator
The indicator lights and the indications (dots) appear when the antenna reception is optimal. Depending on the RF input level, the number of dots changes.

Rear Panel



❶ TUNER OUTPUT (tuner sound output) connector (XLR type)
Supplies audio signals. You can connect this to the audio input connector of a mixer, amplifier, or similar equipment.

❷ OUTPUT LEVEL switch
Select the output level of the XLR-type connector as –20 dBm or –58 dBm. (0 dBm=0.775 Vrms)
Set this switch according to the input level of the equipment connected to the tuner.

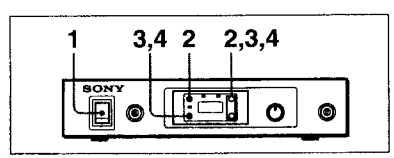
❸ TUNER OUTPUT (tuner sound output) connector (ø6.3 phone balanced (1/4 inch TRS))
Supplies audio signals. You can connect this to the audio input connector of a mixer, amplifier, or similar equipment.
The output level is fixed at –20dBm.

❹ DC IN 9V (9 V DC power input) connector
Connect the supplied AC power adaptor.

❺ Cord clamp
Attaches the cord of the AC power adaptor.

Channel Setting

Take the following precautions to prevent interference and noise.
- If there is a TV broadcasting station nearby, to avoid possible interference from its broadcasting, do not use that station's channel.
- When simultaneously using two or more tuners, always set the tuners to different channels within the same group (other than group 00).



1 Turn the POWER switch on.

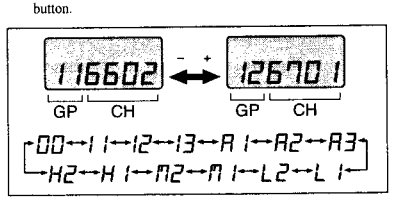
The message "AU 66" appears on the display, and then the current status of this unit is displayed.

Note

Turn the POWER switch on after reducing the volume of equipment connected to the TUNER OUTPUT connector. Otherwise, noise will be heard when the power is turned on.

2 While holding down the GP button, press the + or – button to select a group.

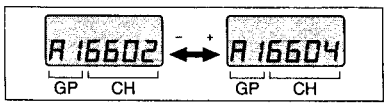
Each time you press the + or – button, the GP indication changes as shown in the following figure. To change the indication continuously, press and hold down the + or – button.



The CH indication shows the lowest frequency channel of the selected group. For group 00, however, the channel selected last is displayed.
Releasing the buttons automatically cancels the group selection mode, and the currently displayed group is selected.

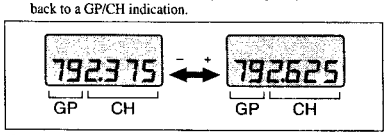
3 While holding down the CH button, press the + or – button to select a channel.

Similar to step **2**, each time you press the + or – button, the CH indication changes in the order shown in the group and reception channel list. *(See "Wireless Channel Lists" on page 6.)*
If you press the + button when the last channel of the selected group is displayed, the first channel of the group will be displayed.



Selecting the reception channel by frequency
Press the + button.

This changes the GP/CH indication to a frequency indication. To change a frequency, press the + or – button while keeping the CH button pressed. (A higher or lower frequency will be displayed.)
Press the + button again to change the frequency indication back to a GP/CH indication.

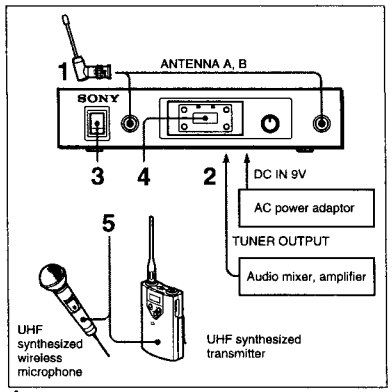


4 If the desired channel or frequency is displayed, release the CH button and + or – button.

The selected channel is set.

To store the selected group and channel
Leave the indication unchanged for 1 second.
The group and channel set in the procedure explained above are stored in memory.

Operation



1 Connect the supplied antennas and make the antenna tips point upward.

2 Connect the supplied AC power adaptor to the DC IN 9V connector and an audio mixer or amplifier to the TUNER OUTPUT connector.

3 Turn the POWER switch on.

(continued)

Note

Turn the POWER switch on after reducing the volume of the equipment connected to the TUNER OUTPUT connector. Otherwise, noise will be heard when the POWER switch is turned on.

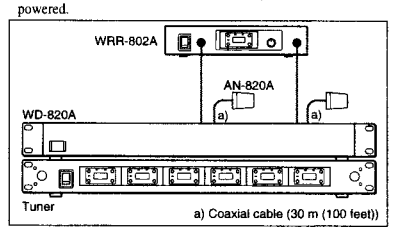
4 Set the reception channel.
For details on setting the channels, see page 12.

5 Turn on the wireless microphone or transmitter.
Use the wireless microphone or transmitter to which the same channel is assigned as to this unit.

If noise is heard
Depending on the environment where the system is installed, outside noise or radio wave may disrupt the transmission of certain channels.
To select a channel under this circumstance, turn off the wireless microphone or transmitter. Then select a channel at which the RF indicator is off. (A channel free from noise or radio wave interference is selected.) Set the same channel on the microphone or transmitter.

Notes on using with a WD-820A
- This unit does not supply the internal booster of the optional AN-820A UHF Antenna through the ANTENNA A,B connectors. It *is impossible to connect the AN-820A directly.*
- When adding the WRR-802A by cascade connection to a tuner system containing the WD-820A UHF Antenna Divider, use a coaxial cable (5D-2V, RG-212/U or equivalent) with length of 30 *m (100 feet)* as shown in the figure.

- To avoid noise, remove the transmitter from the antennas as far as possible when setting the channel or waiting with the transmitter powered.



Notes
- Do not simultaneously use two or more microphones and transmitters that are set to the same channel.
- Separate the reception antennas and the transmitter by more than 3 m (9 feet 11 inches).
- The number of wireless microphone channels actually usable in a multi-channel system may be smaller than the normal capacity of that system if there is interference from TV broadcasting or other RF signals.
- When operating two or more UHF wireless microphone systems using the same wireless channel in the same group, ensure that the systems are at least 100 m (330 feet)[1] apart as far as they are installed within sight of each other.

1) The distance depends on the operating environment and conditions.

Muting Functions

This unit has the following three muting functions, which work in combination.

(1) Muting by RF input level
As sufficient S/N for the audio output may not be obtained if no RF signal is received or the RF input level is low, the audio output can be muted when the RF input level falls below the muting level.

(2) Tone squelch
The audio output is obtained only when the unit receives an RF signal which includes a specified tone signal. The audio output is muted to eliminate noise which may be heard when the transmitter is turned on/off or the unit receives an interference RF signal.

(3) Noise squelch
The audio output is muted to eliminate noise which may be heard when there is such excessive interference RF signal that the tone squelch does not work.

To turn off the muting functions
While holding down the GP and CH buttons, turn the POWER switch to ON. All indications momentarily appear, then go off. "OFF" is then displayed. This procedure cancels all three muting functions at the same time.

To turn on the muting functions
Turn the POWER switch to OFF, then to ON again. The three muting functions are activated at the same time.

Error Messages

Apart from the normal indications, the following error messages may appear on the display.

Message	Meaning	Remedy
Err 01	An error has occurred in the backup memory data.	The memory data is initialized. Reset the group and channel settings.
Err 02	The PLL-synthesized circuit has a malfunction.	Contact your nearest Sony dealer.
NO TONE	As no tone signal is available or a tone signal other than 32.768 kHz is being received, the audio signal output is muted.	Make sure that the transmitter is turned on. If it is, then the problem lies in the transmitter's tone signal generator or the tuner's tone squelch circuit. Contact your nearest Sony dealer. If you are using a WRT-810A wireless microphone, a "NO TONE" message appears when you turn off the AF switch, but this is normal.

Specifications

Tuner

Reception type 110KF3E
Circuit system Dual conversion superheterodyne
Reception frequencies
792.250 to 805.500 MHz
Local oscillators
Crystal controlled PLL synthesizer
Selectivity 60 dB or more (at ±250 kHz detuned)
Spurious rejection ratio
70 dB or more
Image rejection ratio
60 dB or more
Muting level 30 dBμ[1]
Antenna connectors
BNC-R type (2), 50 ohms
Frequency response
100 to 15,000 Hz ±3 dB
De-emphasis 50 μsec
Signal-to-noise ratio
40 dB or more at an A-weighted RF input level of 20 dBμ
60 dB or more at an A-weighted RF input level of 60 dBμ
(±5 kHz deviation at 1 kHz modulation)
Distortion 1% or less (±40 kHz deviation at 1 kHz modulation)
Tone signal frequency
32.768 kHz
Output level –20 dBm[2] or –58 dBm (±5 kHz deviation at 1 kHz modulation)
Output impedance
150 ohms
Output connectors
ø6.3 phone balanced (1/4 inch TRS)
XLR-3-12C

1) 0 dBμ=1 μV
2) 0 dBm=0.775 Vrms (600 ohms loaded)

General

Power requirements
9 V DC
Current consumption
Approx. 600 mA
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to +55°C (–4°F to +131°F)
Dimensions 218 × 44 × 210 mm
(8 5/8 × 1 3/4 × 8 3/8 inches) (w/h/d)
Mass Approx. 1.6 kg (3 lb 8 oz)
Accessories supplied
AC power adaptor (1)
Antennas (2)
Operating Instructions (1)

Design and specifications are subject to change without notice.

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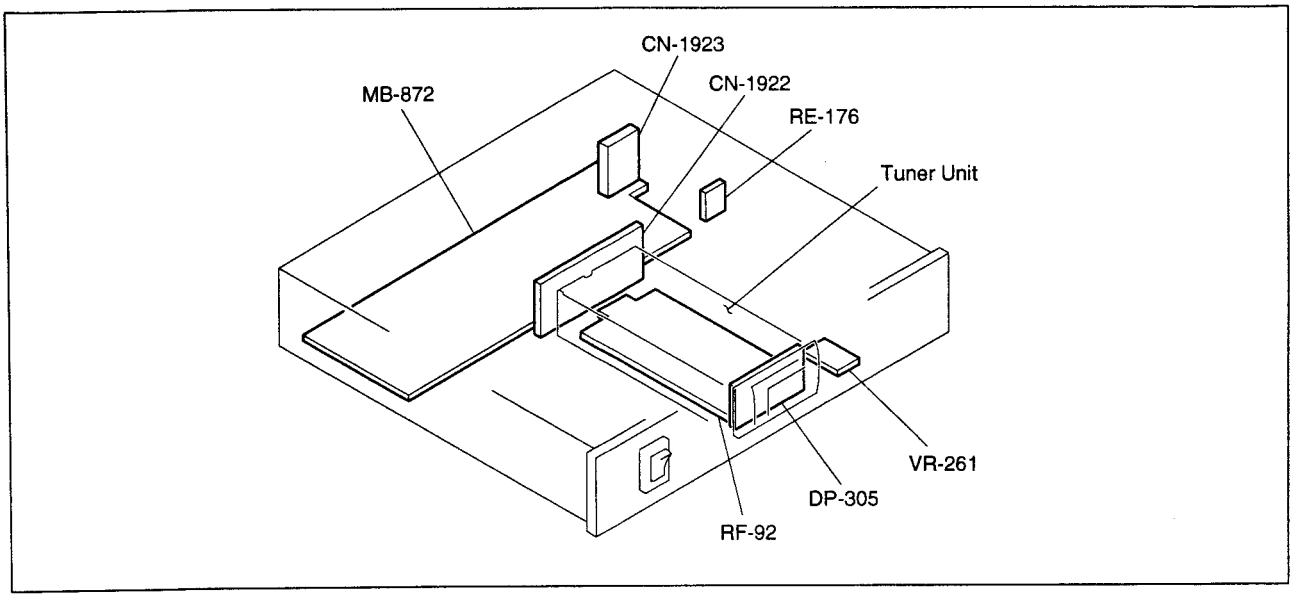
Section 2
Service Overview

2-1. Boards Location



2-2. Error Messages

The following error messages will appear if an error is detected by the built-in self diagnostics function of the WRR-802A.

Error message	Comments	Countermeasure
Err 01	Error the backup memory	Because data is initialized, perform the group setting, channel setting again. Check the tuner unit then fix a faulty section, and perform "3. Electrical Alignment" if there is an error message even when the setting had been completed again.
Err 02	PLL synthesizer circuit failed	Malfunction of tuner unit. Check the tuner unit then fix a faulty section, and perform "3. Electrical Alignment".
NO TONE	As no tone signal is available or a tone signal other than 32.768 kHz is being received, the audio signal output is muted.	Make sure that the transmitter is turned on. If it is, then the problem lies in the transmitter's tone signal generator or the tuner's tone squelch circuit. If you are using a WRT-810A wireless microphone, a "NO TONE" message appears when you turn off the AF switch, but this is normal. • To check the characteristics, perform "3-2-2. Overall Characteristic Confirmation". If there are out of characteristics, tuner unit may defect. • Check the tuner unit then fix a faulty section, and perform "3. Electrical Alignment".

2-3. Setting / Release of Muting Function

Set or release the following functions by operating the button on the front panel of the WRR-802A.

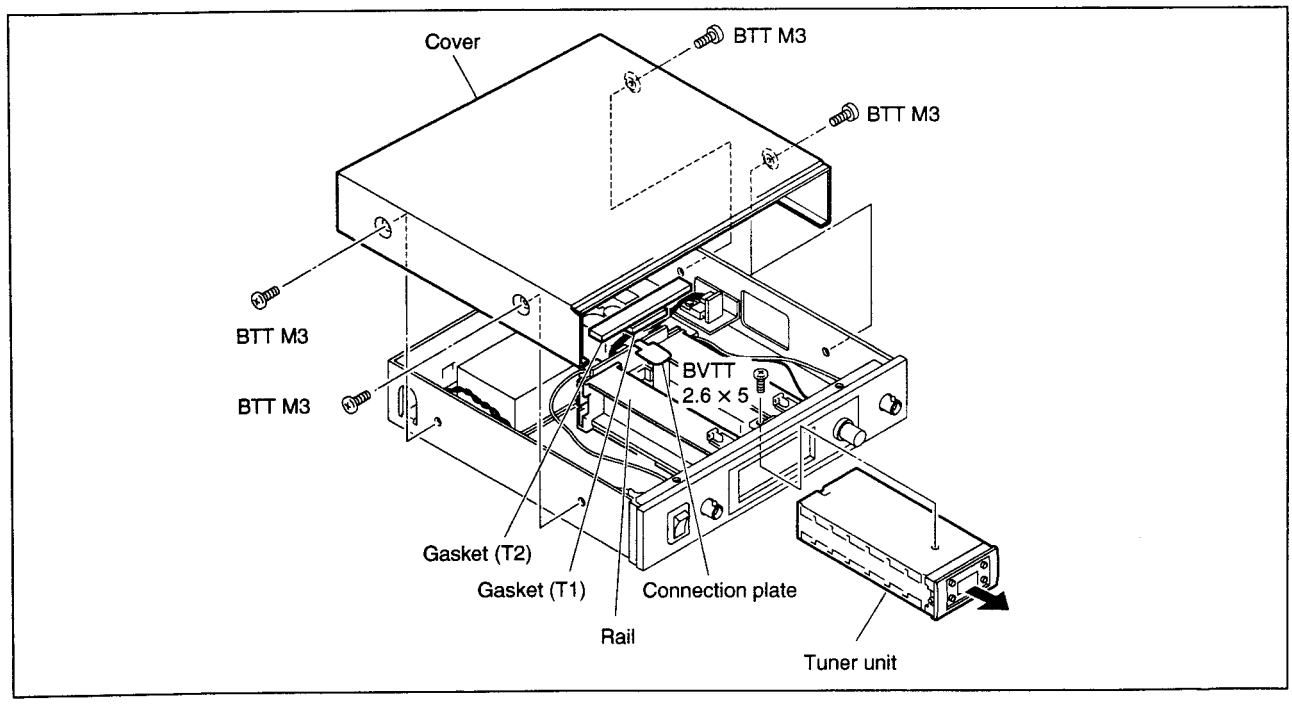
Function	Setting / Release
• Muting OFF by RF signal input level • Muting OFF by tone squelch	Muting OFF mode setting: When pressing the "GP" and "CH" buttons, turn ON the POWER switch.
• Muting OFF by noise squelch	Muting OFF mode releasing (Normal operation mode): Turn OFF the POWER switch.

Default Factory Setting : Muting OFF mode is released (Normal mode).

2-4. Service Information for Tuner Unit

2-4-1. Tuner Unit Removal

1. Remove the four screws (BTT M3) from the side panel, and remove the cover.
2. Remove the screw (BVTT2.6 × 5).
3. Remove the gasket (T1) and gasket (T2) from the rail and the tuner unit.
4. Desolder the connection plate from the lid of the tuner unit.
5. Pull out the tuner unit in the arrow direction.



2-4-2. Tuner Unit Checking

The following procedures describe how to prove the tuner unit of WRR-802A (repair unit) whether it needs to be repaired or not.

Equipment Required : MB-806A (quality unit)
WRU-806A (quality unit)

(1) Install the repair tuner unit to be examined in a quality MB-806A.
(2) Check the fault with a quality MB-806A.
- If there is no fault, it is considered that the tuner unit is no longer defective.
  Restore the tuner unit to its original WRR-802A (repair unit). Check all components other than the tuner unit, such as MB-872 board, CN-1922 board, CN-1923 board, harness, etc., then fix a faulty section.

- If there is a fault, tuner unit is defective.
  Check the tuner unit then fix a faulty section, and perform "3. Electrical Alignment".

(3) In order to prove the whole WRR-802A, change the tuner unit of the repairing WRR-802A with WRU-806A (quality unit).
(4) Check the fault of repairing WRR-802A.
- If there is no fault found on the repairing WRR-802A, tuner unit is defective.

- If there is a fault, it is considered that both the tuner unit and other components, such as MB-872 board, CN-1922 board, CN-1923 board, harness, etc., are defective. Check all components then fix a faulty section.

Section 3
Electrical Alignment

3-1. Preparation

3-1-1. Equipment and Tools

Equipment

Name	Specifications		Model name
DC power supply	+9 Vdc output		—
Signal generator	Frequency:	100 kHz to 990 MHz	HEWLETT PACKARD 8656B or equivalent
Spectrum analyzer	Frequency:	10 kHz to 5 GHz	ADVANTEST TR4173 or equivalent
DC volt meter (Multi Meter)	Effective digits:	3 1/2 digits	—
Audio analyzer	Frequency:	10 Hz to 100 kHz	HEWLETT PACKARD 8903B equivalent
RF millivolt meter	Frequency:	10 kHz to 1000 MHz	MEGURO MV-19B, C (with 50 Ω termination prove chip MP-3109) or equivalent
Level meter	Frequency:	20 Hz to 100 kHz	—
Noise meter	Frequency: Filter (included):	10 Hz to 500 kHz A weighted filter	MEGURO MN-445B or equivalent
Tracking generator	Frequency:	100 kHz to 2 GHz	ADVANTEST TR4153A or equivalent
Function generator	32.768 kHz (and 32.782 kHz) ±1 Hz signal (sine wave) can be generated.		HEWLETT PACKARD 8904A or equivalent
Mic amp	Gain:	0 dB to 70 dB (with A weighted filter)	—
Oscilloscope	Frequency:	DC to 30 MHz	—

Tools

Name	Part No.	Remarks
Adjuster (0.4 × 1.3 mm)	7-721-052-81	For adjustment

3-2. Adjustment

This section describes the following adjustments (and checks) required to satisfy the specifications.

Adjustment Item

3-2-1. Tuner Unit Adjustment

1. Muting level and RF level adjustment
2. Output level adjustment
3. Noise squelch adjustment

3-2-2. Overall Characteristic Check

1. Output level check
2. S/N check
3. Frequency characteristic check
4. Distortion ratio check
5. RF level indicator check
6. AF level indicator/AF indicator check
7. Muting level/RF indicator check
8. BATT indicator check
9. Tone squelch check

Note

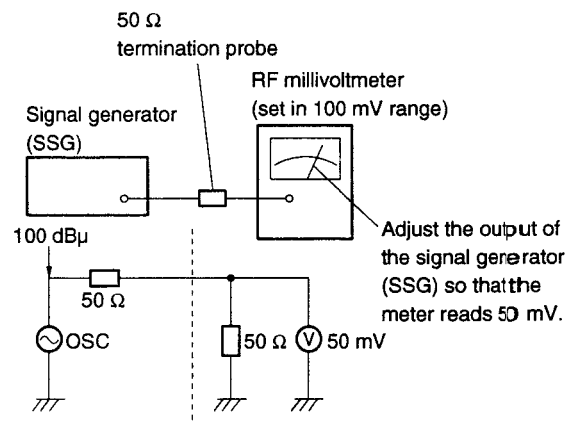
0 dBμV_{EMF} = −113 dBm
(EMF = Electromotive force)
0 dBm = 1 mW at 50 Ω loaded

Note on Adjustment

The RF level of the input signal (the output level of the signal generator) for adjustment is expressed as an open ended voltage in unit dBμ (0 dBμ = 1 μV).
The adjustment is to be performed by calibrating the output level of the signal generator as shown below.

Calibration method

(1) Connect the RF millivoltmeter to the signal generator as shown in the figure below.
(2) Adjust the level of the output signal from the signal generator (SSG) so that the RF millivolt meter reads 50 mV. The level of the output signal from the signal generator (SSG) when RF millivoltmeter reads 50 mV shall be specified as 100 dBμ (at no load).



3-2-1. Tuner Unit Adjustment

1. Muting level and RF level adjustment

Perform this adjustment when the Muting levels deviate from the specification.
This adjustment is performed automatically by the learning function of the WRR-802A RSSI learning.

Preparation

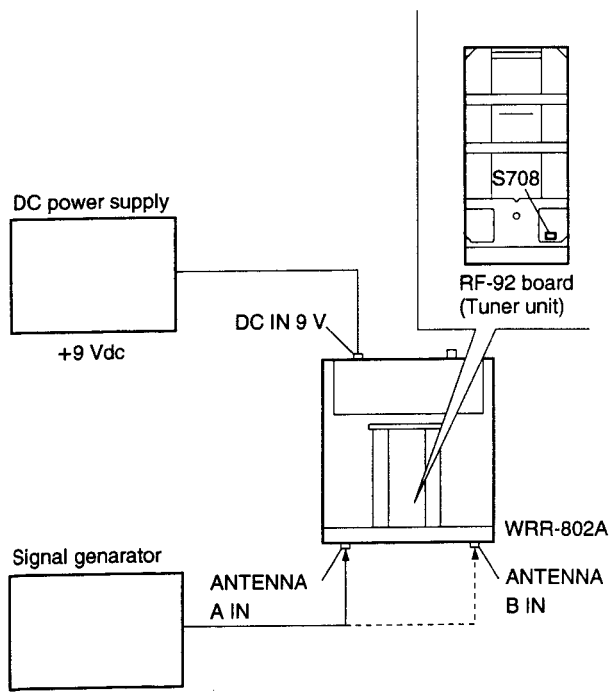
Before the adjustments, turn off the POWER switch of the WRR-802A, and perform the following.

1. Remove the case cover of the WRR-802A.
2. Remove the tuner unit from the WRR-802A.
3. Remove the upper side case lid of the tuner unit, and insert the tuner unit to the slot of the WRR-802A.

Equipment and Tools

DC power supply: +9 Vdc
Signal generator

Connection



Procedure

Step 1: Preparation

Set the signal generator as follows:

Signal generator setting

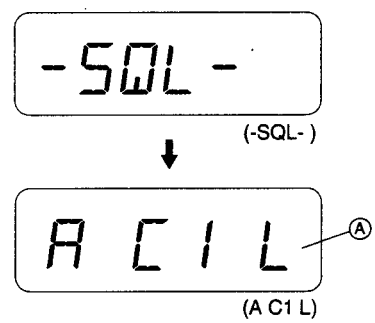
FREQUENCY(Carrier frequency)
CE62 model; 802.000 MHz
CE69 model; 855.000 MHz
AU66 model; 795.000 MHz

RF OUTPUT (Output level): 35 dBμVEMF
(= −78 dBm)

MODULATION (Modulation frequency):
OFF (No modulation)

Step 2: Adjustment

(1) Connect the signal generator to the ANTENNA A IN connector.
(2) Turn OFF the WRR-802A POWER switch.
(3) Set the RF OUTPUT (output level) of the signal generator to the OFF.
(4) While pressing the S708 switch on the RF-92 board (tuner unit), turn on the WRR-802A POWER switch.
(5) Indication on LCD appears as follows:
LCD:



(6) Set the RF OUTPUT (output level) of the signal generator to the ON.

(7) Check first that indication "L" of "AC1L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

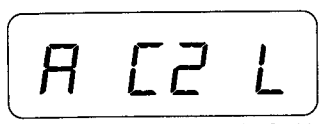
Note

If the "L" indication does not disappear from the LCD (on Ⓐ area: refer to the previous procedure (5) (when the RF input level is lower than the reference level) or "H" is displayed (when the RF input level is higher than the reference level), perform the following adjustment.

① Check the RF output level and frequency of the signal generator (perform re-setting if necessary), and repeat from procedure (1).

② If the above conditions (the "L" indication does not disappear, or "H" is displayed) remain even after re-adjustment, it is necessary to check the tuner unit.

(8) Indication on the LCD appears as follows
LCD:

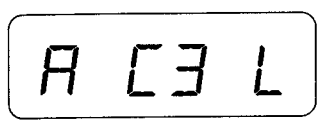


(A C2 L)

(9) Set the FREQUENCY (carrier frequency) of the signal generator as follow.
FREQUENCY(Carrier frequency)
CE62 model; 806.000 MHz
CE69 model; 858.000 MHz
AU66 model; 799.000 MHz

(10)Check first that indication "L" of "AC2L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

(11)Indication on the LCD appears as follows:
LCD:



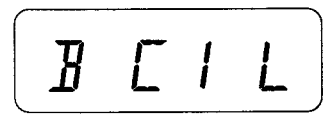
(A C3 L)

(12)Set the FREQUENCY (carrier frequency) of the signal generator as follow.
FREQUENCY(Carrier frequency)
CE62 model; 811.000 MHz
CE69 model; 861.000 MHz
AU66 model; 804.000 MHz

(13)Check first that indication "L" of "AC3L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

(14)Connect the signal generator to the ANTENNA B IN connector.

(15)Indication on the LCD appears as follows:
LCD:

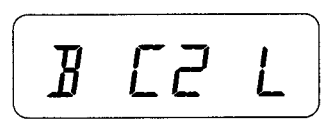


(B C1 L)

(16)Set the FREQUENCY (carrier frequency) of the signal generator as follows;
FREQUENCY (carrier frequency)
CE62 model; 802.000 MHz
CE69 model; 855.000 MHz
AU66 model; 795.000 MHz

(17)Check first that indication "L" of "BC1L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

(18)Indication on the LCD appears as follows:
LCD:

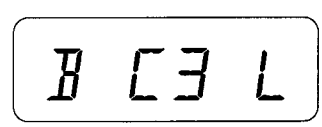


(B C2 L)

(19)Set the FREQUENCY(carrier frequency) of the signal generator as follows;
FREQUENCY(carrier frequency)
CE62 model; 806.000 MHz
CE69 model; 858.000 MHz
AU66 model; 799.000 MHz

(20)Check first that indication "L" of "BC2L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

(21)Indication on the LCD appears as follows:
LCD:



(B C3 L)

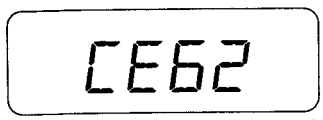
(22)Set the FREQUENCY (carrier frequency) of the signal generator as follows;
FREQUENCY (carrier frequency)
CE62 model; 811.000 MHz
CE69 model; 861.000 MHz
AU66 model; 804.000 MHz

(23)Check first that indication "L" of "BC3L" on the LCD has disappeared, and then press the S708 switch on the RF-92 board (tuner unit).

(24)Indication on the LCD appears as follows:

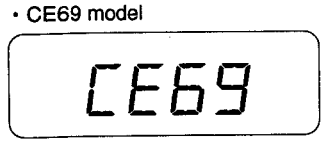
LCD:

• CE62 model



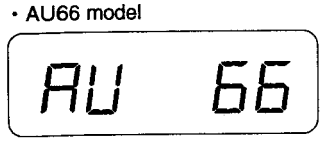
(CE62)

• CE69 model



(CE69)

• AU66 model



(AU66)

Adjustment is completed. (Normal operation mode)

2. Output level adjustment

Perform this adjustment when the TUNER OUTPUT levels deviate from the specification.

Preparation

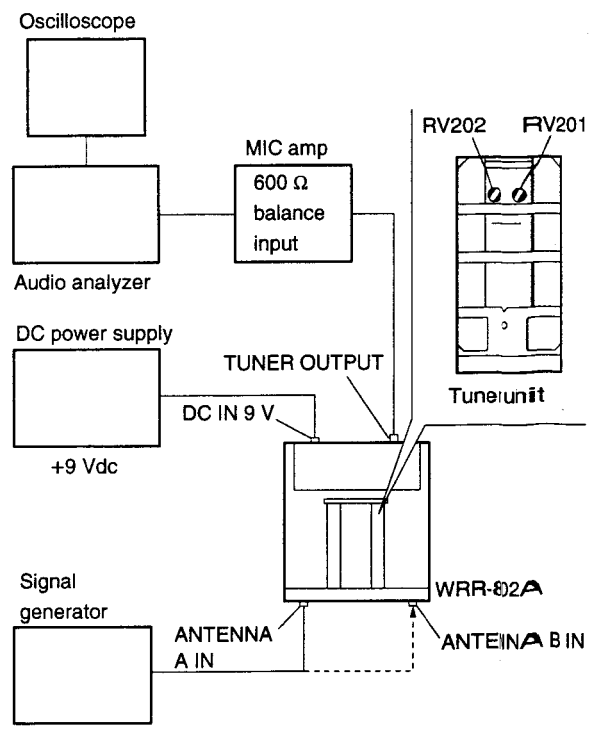
Before the adjustments, turn off the POWER switch of the WRR-802A, and perform the followings.

1. Remove the case cover of the WRR-802A.
2. Remove the tuner unit from the WRR-802A.
3. Remove the upper side case lid of the tuner unit, and insert the tuner unit to the slot of the WRR-802A.

Equipment and Tools

- DC power supply: +9 Vdc
- Audio analyzer (level meter, distortion meter)
- Mic amp (Noise meter)
- Oscilloscope
- Adjuster (0.4 × 1.3 mm): (Part No. 7-221-652-81)

Connection/Adjustment Location



Switch and Control Setting

Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: MAX
Muting: OFF
TUNER OUTPUT LEVEL switch: LINE (−20 dBm)

Procedure

Step 1: Preparation
Set the signal generator as follows:
Signal generator setting
FREQUENCY (Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

Step 2: Adjustment
(1) Connect the audio analyzer to the TUNER OUTPUT (XLR type) connector via MIC amp (Amplification gain 0 dB).
(2) Connect the signal generator to the ANTENNA A IN connector.
(3) Adjustment (ANTENNA A IN side adjustment)
Specification: Output level (level meter indication level) = −21 dBm ±0.5 dB (at 600 Ω loaded)
Adjustment: ⊘RV202/RF-92 board (Tuner unit)
(4) Connect the signal generator to the ANTENNA B IN connector.
(5) Adjustment (ANTENNA B IN side adjustment)
Specification: Output level (level meter indication level) = −21 dBm ±0.5 dB (at 600 Ω loaded)
Adjustment: ⊘RV201/RF-92 board (Tuner unit)

Note

The output level difference between the ANTENNA A side and the ANTENNA should be within 0.3 dB.

Step 3:
After completing adjustment, turn off the WRR-802A power switch and perform the followings.
(1) Remove the tuner unit from the WRR-802A.
(2) Attach the upper side case lid to the tuner unit, and insert the tuner unit to the slot of the WRR-802A.

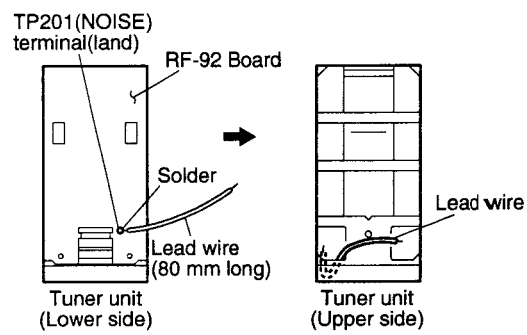
3. Noise squelch adjustment

Equipment and Tools

- DC power supply: +9 Vdc
- Signal generator
- Audio analyzer (level meter, distortion meter)
- Mic amp (Noise meter)
- Oscilloscope
- Adjuster (0.4 × 1.3 mm) : (Part No. 7-221-652-81)

Preparation

Before the adjustments, turn off the POWER switch of the WRR-802A, and perform the followings.
1. Remove the case cover of the WRR-802A.
2. Remove the tuner unit from the WRR-802A.
3. Remove the upper and lower side case lids of the tuner unit.
4. Solder a wire (80 mm long) to the TP201 (NOISE) terminal (land) on the RF-92 board (tuner unit), and take out the free side of the wire (80 mm long) to the upper side of the tuner unit as below.



5. Attach the lower side case lid to the tuner unit, and insert the tuner unit to the slot of the WRR-802A.

Connection

Same as " 2. Output level adjustment ".

Switch and Control Setting

Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. Control: MAX
Muting: OFF

Procedure

Step 1: S/N check

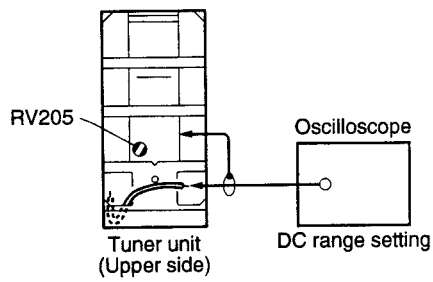
Perform the " 2. S/N Check " of Section 3-2-2. Overall Characteristics Check.

When checking the S/N at 0 dBμVEMF (= −113 dBm) , note the ANNTENA A or B IN connector which shows the better S/N.

Step 2: Adjustment

(1) Connect the signal generator to the ANTENNA A (or B) IN connector which showed the better S/N at the input of 0 dBμVEMF (= −113 dBm) under "Step 1. S/N check".
Set the signal generator as follows;

(2) Connect the oscilloscope to the wire (TP201 terminal) as shown below.



(3) Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 0 dBμVEMF
(= −113 dBm)
MODULATION (Moduation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

(4) Adjust the RF OUTPUT (Output level) of the signal generator so that Signal to Noise ratio is 34 dB ±5 dB (S/N; 34 dB ±5 dB) under the " Step 1. S/N check ".

(5) Turn ⊘RV205(tuner unit) slowly counterclockwise to be the DC voltage of the TP201 (NOISE) terminal (land) change "L" (about 0 V).

(6) Adjustment
Specification: DC voltage of the TP201 (NOISE) terminal(land) change from "L"(about 0 V) to "H"(about 4.8 V) level.
Adjustment: ⊘RV205/RF-92 board (tuner unit)
Turn ⊘RV205 slowly clockwise for adjustment.

Step 3.

After completing adjustment, turn off the WRR-802A power switch and perform the followings.

(1) Remove the tuner unit from the WRR-802A.

(2) Remove the lower side case lid from the tuner unit, and unsolder the wire (80 mm long) from the TP201 (NOISE) terminal (land).

(3) Attach the upper and lower side case lids to the tuner unit, and insert the tuner unit to the slot of the WRR-802A.

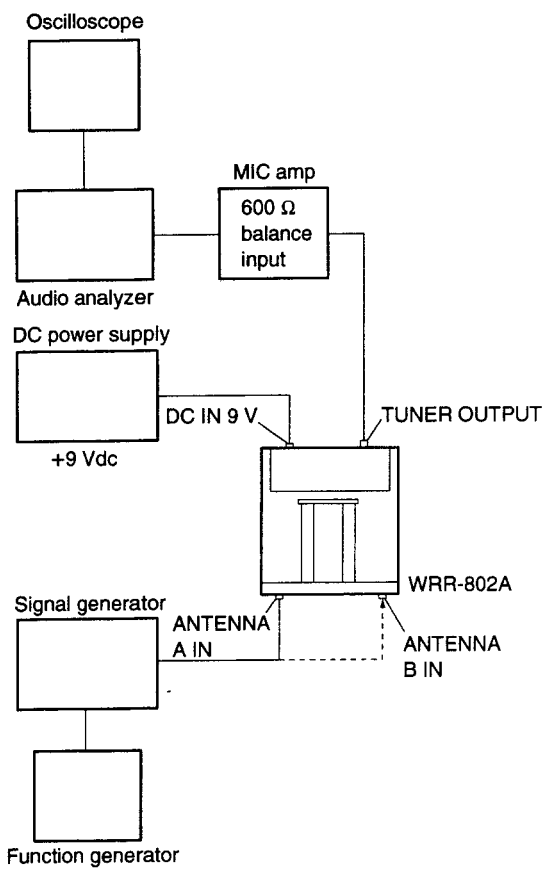
3-2-2. Overall Characteristics Check

Perform the overall characteristics check according to the following procedure.

Procedure

1. Output level check
   ↓
2. S/N check
   ↓
3. Frequency characteristic check
   ↓
4. Distortion check
   ↓
5. RF Level indicator check
   ↓
6. AF Level indicator/AF indicator check
   ↓
7. Muting level /RF indicator check
   ↓
8. BATT indicator check
   ↓
9. Tone squelch check

Connection



Equipment and Tools

- DC power supply: +9 Vdc
- Signal generator
- Function generator
- Audio analyzer
- Mic amp (Noise mete) with A-weighted filter
- Oscilloscope
- DC current meter

1. Output level check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: MAX
Muting: OFF
TUNER OUTPUT LEVEL switch: LINE (−20 dBm)

(2) Connect the audio analyzer to the TUNER OUTPUT (XLR type) connector via MIC amp (Amplification gain 0 dB).

(3) Connect the signal generator to the ANTENNA A IN connector.

(4) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

(5) Check that the TUNER OUTPUT (XLR type) connector output level is −21 dBm ±1.5 dB (at 600 Ω loaded).

(6) Connect the audio analyzer to the TUNER OUTPUT (TRS type) connector via the MIC amp (Amplification gain 0 dB).

(7) Check that the TUNER OUTPUT (TRS type) connector output level is −21 dBm ±1.5 dB (at 600 Ω loaded).

(8) Connect the signal generator to the ANTENNA B IN connector.

(9) Perform the procedures (5), (6), and (7).

2. S/N Check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: MAX
Muting: OFF
TUNER OUTPUT LEVEL switch: LINE (−20 dBm)

(2) Connect the audio analyzer to the TUNER OUTPUT (XLR type) connector via MIC amp (Amplification gain 0 dB).

(3) Connect the signal generator to the ANTENNA A IN connector.

(4) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

(5) Read the output level of the TUNER OUTPUT (XLR type) connector (Audio analyzer indication level). This level is specified to be 0 dB.

(6) Turn OFF the MODULATION of the signal generator (No modulation).

(7) Check that output level of the TUNER OUTPUT (XLR type) is −62 dB or less (S/N is 62 dB or more with A-weighted filter) as compared with the level of procedure (5) above.

(8) Change the RF OUTPUT (output level) of the signal generator as shown below.
RF OUTPUT (output level): 20 dBμVEMF
(= −93 dBm)

(9) Check that output level of the TUNER OUTPUT (XLR type) is −50 dB or less (S/N is 50 dB or more with A-weighted filter) as compared with the level of procedure (5) above.

(10) Change the RF OUTPUT (output level) of the signal generator as shown below.
RF OUTPUT (output level): 60 dBμVEMF
(= −53 dBm)

(11) Set the audio analyzer to the distortion mode.

(12) Check that distortion ratio is −45 dB or less (0.56 % or less) with A-weighted.

(13) Connect the audio analyzer to the TUNER OUTPUT(TRS type) connector via the MIC amp (Amplification gain 0 dB).

(14) Perform the procedures (5) through (12).

(15) Connect the signal generator to the ANTENNA B IN connector.

(16) Perform the procedures (4) through (14) above.

(17) Set the channel and FREQUENCY (carrier frequency) of the signal generator as shown ① and ② below. Perform the procedures (1) to (16) above, for each channel setting (① and ②).

① Channel setting:
CE62 model: Group 00, 6217 channel (800.125 MHz)
CE69 model: Group 00, 6901 channel (854.125 MHz)
AU66 model: Group 00, 6601 channel (792.250 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model: 800.125 MHz
CE69 model: 854.125 MHz
AU66 model: 792.250 MHz

② Channel setting:
CE62 model : Group 00, 6363 channel (813.875 MHz)
CE69 model : Group 00, 6964 channel (862.000 MHz)
AU66 model : Group 00, 6751 channel (805.500 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model : 813.875 MHz
CE69 model : 862.000 MHz
AU66 model : 805.500 MHz

3. Frequency characteristic check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: MAX
Muting: OFF
TUNER OUTPUT LEVEL switch: LINE (−20 dBm)

(2) Connect the audio analyzer to the TUNER OUTPUT (XLR type) connector via MIC amp (Amplification gain 0 dB).

(3) Connect the signal generator to the ANTENNA A IN connector.

(4) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±12 kHz

(5) Read the output level of the TUNER OUTPUT (XLR type) connector (indication of the audio analyzer). This level is specified to be 0 dB.

(6) Change the MODULATION (modulation frequency) of the signal generator as follows, and check the output level with respect to the output level under the procedure (5) is set also as follows.

Note

100 Hz and 15 kHz modulation frequency must be set by using the function generator.

MODULATION frequency of signal generator	TUNER OUTPUT connector output level
100 Hz	−0.7 ±1.0 dB
15 kHz	−28.5 ±2.5 dB

(7) Connect the audio analyzer to the TUNER OUTPUT (TRS type) connector via the MIC amp (Amplification gain 0 dB).

(8) Perform the procedures (5) and (6).

(9) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (4) through (8).

4. Distortion ratio check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: MAX
Muting: OFF
TUNER OUTPUT LEVEL switch: LINE (−20 dBm)

(2) Connect the audio analyzer to the TUNER OUTPUT (XLR type) connector via MIC amp (Amplification gain 0 dB).

(3) Connect the signal generator to the ANTENNA A IN connector.

(4) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60d BμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±40 kHz

(5) Set the audio analyzer to the distortion mode, and check that the distortion ratio is less than 0.7 %.

(6) Change the MODULATION (modulation frequency) of the signal generator as shown below.
MODULATION (modulation frequency): 10 kHz
(Note: 10 kHz modulation frequency must be set by using the function generator.)
Check that the distortion ratio is less than 4 %.

(7) Connect the audio analyzer to the TUNER OUTPUT (TRS type) connector via the MIC amp (Amplification gain 0 dB).

(8) Perform the procedures (5) and (6).

(9) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (5) through (8) above.

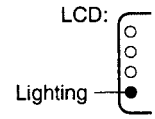
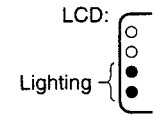
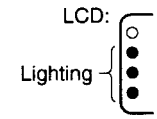
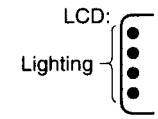
(10)Set the channel setting and FREQUENCY (carrier frequency) of the signal generator as shown ① and ② below.
Perform the procedures (1) to (9) above, for each channel setting (① and ②).
① Channel setting:
CE62 model: Group 00, 6217 channel (800.125 MHz)
CE69 model: Group 00, 6901 channel (854.125 MHz)
AU66 model: Group 00, 6601 channel (792.250 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model: 800.125 MHz
CE69 model: 854.125 MHz
AU66 model: 792.250 MHz
② Channel setting:
CE62 model : Group 00, 6363 channel (813.875 MHz)
CE69 model : Group 00, 6964 channel (862.000 MHz)
AU66 model : Group 00, 6751 channel (805.500 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model : 813.875 MHz
CE69 model : 862.000 MHz
AU66 model : 805.500 MHz

5. RF level indicator check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: Any position
Muting: ON
(2) Connect the signal generator to the ANTENNA A IN connector.
(3) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 0 dBμVEMF
(= −113 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

(4) Increase gradually the output level from the signal generator, and check that the output level of the signal generator is as follows when the RF input level indicator lights.

RF level indicator (green) lights in	Signal generator output level
	25 dBμVEMF ±5 dB
	35 dBμVEMF ±5 dB
	45 dBμVEMF ±5 dB
	55 dBμVEMF ±5 dB

(5) Connect the signal generator to the ANTENNA B IN connector, and perform the procedure (4) above.
(6) Set the channel setting and FREQUENCY (carrier frequency) of the signal generator as shown ① and ② below.
Perform the procedures (2) through (5) above, for each channel setting (① and ②).
① Channel setting:
CE62 model: Group 00, 6217 channel (800.125 MHz)
CE69 model: Group 00, 6964 channel (854.125 MHz)
AU66 model: Group 00, 6601 channel (792.250 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model: 800.125 MHz
CE69 model: 854.125 MHz
AU66 model: 792.250 MHz
② Channel setting:
CE62 model : Group 00, 6363 channel (813.875 MHz)
CE69 model : Group 00, 6964 channel (862.000 MHz)
AU66 model : Group 00, 6751 channel (805.500 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model : 813.875 MHz
CE69 model : 862.000 MHz
AU66 model : 805.500 MHz

6. AF level indicator/AF indicator check

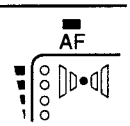
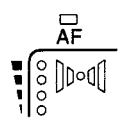
Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: Any position
Muting: OFF

(2) Connect the signal generator to the ANTENNA A IN connector.

(3) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz

(4) Increase gradually DEVIATION (frequency deviation) of the signal generator starting from ±3 kHz, and check that the deviation of the signal generator is ±(5.0 ±1.0) kHz with the AF indicator as follows.

DEVIATION setting on signal generator	AF indicator	
±(5.0 ±1.0) kHz	AF level indicator (LCD): Lights. AF indicator (LED): Lights.	
Less than ±(5.0 ±1.0) kHz	AF level indicator (LCD): Goes out. AF indicator (LED): Goes out.	

(5) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (3) and (4) above.

7. Muting level/RF indicator check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: Any position
Muting: ON (Normal mode)

(2) Connect the signal generator to the ANTENNA A IN connector.

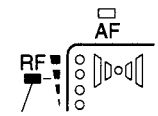
(3) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency): 1 kHz
DEVIATION (Frequency deviation): ±5 kHz

(4) Check that RF Indicator LED lights (green) and "NO TONE" message appears on LCD.

(5) Change the RF OUTPUT (output level) of the signal generator as shown below.
RF OUTPUT (output level): 15 dBμVEMF
(= −98 dBm)

(6) Check that RF Indicator LED goes off (green) and "NO TONE" message disappears on LCD.

(7) Increase gradually the RF OUTPUT (output level) of the signal generator.
Check that RF OUTPUT (output level) is 25 dBμVEMF ±5 dB at when RF Indicator lights (green LED) and "NO TONE" message appears on LCD.



RF indicator lights.

(8) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (3) through (7) above.

(9) Set the channel setting and FREQUENCY (carrier frequency) of the signal generator as shown ① and ② below.
Perform the procedures (1) to (8) above, for each channel setting (① and ②).

① Channel setting:
CE62 model: Group 00, 6217 channel (800.125 MHz)
CE69 model: Group 00, 6901 channel (854.125 MHz)
AU66 model: Group 00, 6601 channel (792.250 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model: 800.125 MHz
CE69 model: 854.125 MHz
AU66 model: 792.250 MHz

② Channel setting:
CE62 model : Group 00, 6363 channel (813.875 MHz)
CE69 model : Group 00, 6964 channel (862.000 MHz)
AU66 model : Group 00, 6751 channel (805.500 MHz)
Signal generator setting:
FREQUENCY(Carrier frequency)
CE62 model : 813.875 MHz
CE69 model : 862.000 MHz
AU66 model : 805.500 MHz

8. BATT (Battery) indicator check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: Any position
Muting: ON (Normal mode)

(2) Connect the signal generator to the ANTENNA A IN connector.

(3) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF (= −53 dBm)
MODULATION (Modulation frequency): 32.782 kHz (32.782 kHz must be set by connecting Function generator)
DEVIATION (Frequency deviation): ±2.1 kHz

(4) Turn on and off the MODULATION (modulation frequency) of the signal generator as follows, and check that BATT Indicator change also as follows:

MODULATION setting of signal generator	BATT indicator
ON	BATT indicator (LCD): Turn the signal generator on and BATT indicator starts blinking after 30 seconds. BATT indicator (LED): Turn the signal generator on and BATT indicator starts blinking after 30 seconds.
OFF	BATT indicator (LCD): Goes out. BATT indicator (LED): Goes out.

(5) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (3) and (4) above.

9. Tone squelch check

Procedure

(1) Set the WRR-802A as follows;
Channel setting
CE62 model; Group 00, 6301 channel (806.125 MHz)
CE69 model; Group 00, 6933 channel (858.125 MHz)
AU66 model; Group 00, 6701 channel (799.250 MHz)
VOL. control: Any position
Muting: ON (Normal mode)

(2) Connect the signal generator to the ANTENNA A IN connector.

(3) Set the signal generator as follows:
Signal generator setting
FREQUENCY(Carrier frequency)
CE62 model; 806.125 MHz
CE69 model; 858.125 MHz
AU66 model; 799.250 MHz
RF OUTPUT (Output level): 60 dBμVEMF
(= −53 dBm)
MODULATION (Modulation frequency):
32.768 kHz
(32.768 kHz must be set by connecting Function generator)
DEVIATION (Frequency deviation): ±1.4 kHz

(4) Turn on and off the MODULATION (modulation frequency) of the signal generator as follows, and the LCD indication changes also as follows.

MODULATION ON/OFF on signal generator	LCD indication
ON	GP/CH indication (LCD): CE62 model; "00. 6301" appears. CE69 model; "00. 6933" appears. AU66 model; "00. 6701" appears.
OFF	GP/CH indication (LCD): "NO TONE" appears.

(5) Connect the signal generator to the ANTENNA B IN connector, and perform the procedures (3) and (4) above.

Section 4
Semiconductor Pin Assignments

The semiconductors in the manual are listed by equivalent types. Thus the external view or the index mark indication may differ from the actual type.
In some cases incompatible types are also listed, therefore, when a part is to be replaced, also refer to the Spare Parts section.
Pin assignments and block diagrams are based on the IC manufacturer's data book.

ここに記載されている半導体は，それぞれの機能を等価的に表わしたものです。
外観やインデックスマークの表示方法が実物と異なる場合があります。
なお，互換性のない型名を併記している場合がありますので，部品を交換するときは，Spare Partsの章を参照してください。
ピン配置およびブロック図はICメーカーのデータブックに従いました。

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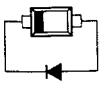
Diode, LED, Transistor

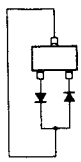
DIODE

—TOP VIEW—



1SS355TE-17

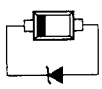
—TOP VIEW—



1SS362-TE85L

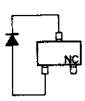
EC10QS-04
EC10QS04-TE12L5

—TOP VIEW—



HZU5.6B2TRF
HZU6.8B2TRF

—TOP VIEW—



RB411D
RB411D-T146
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LED

—TOP VIEW—

SML-310DTT86
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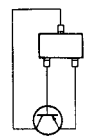
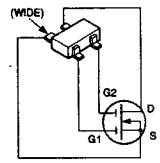
TRANSISTOR

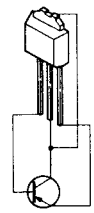
—TOP VIEW—



2SA1832-YGR-TE85L

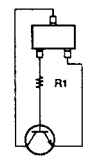


3SK254-T2
3SK255-T2



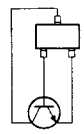
2SB1202FAST
2SB1202FAT-TL

—TOP VIEW—

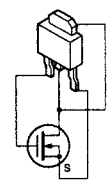


DTC323TK (R1=2.2 k)
DTC323TKT146

—TOP VIEW—



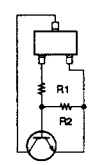
2SC4726LN-TLPQ
2SC4738-YGR-TE85L
2SC4915-O-TE85L
2SD1048-X7
2SD1048X6-TB
2SD2216-Q (TOSHIBA)



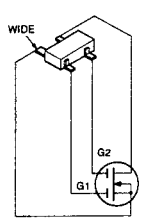
MTD20N06HDLT4

2SJ377(TE16L)

—TOP VIEW—

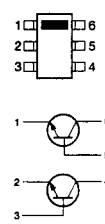


RN1104-TE85L
UN9213



3SK239AXRTL

—TOP VIEW—

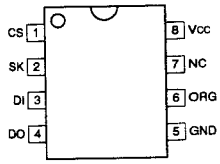


UMX2NTL

IC

CAT93C86S-LE10 (CATALYST)

16K-BIT SERIAL EEPROM
—TOP VIEW—



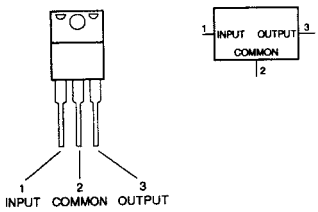
INPUTS
CS : CHIP SELECT
DI : SERIAL DATA
ORG : MEMORY ORGANIZATION
SK : CLOCK

OUTPUT
DO : SERIAL DATA

OTHER
NC : NO CONNECTION

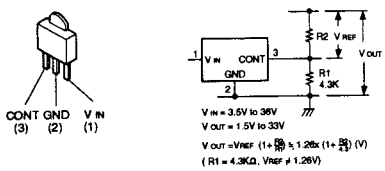
KIA7809PI-S (KOREA ELECTRONICS)

POSITIVE VOLTAGE REGULATOR
—FRONT VIEW—



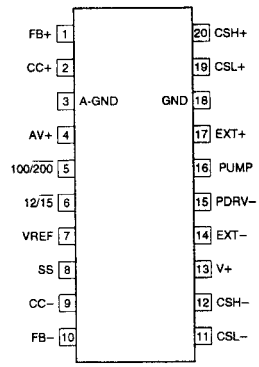
M5237ML-TP1 (MITSUBISHI)

ADJUSTABLE VOLTAGE REGULATOR



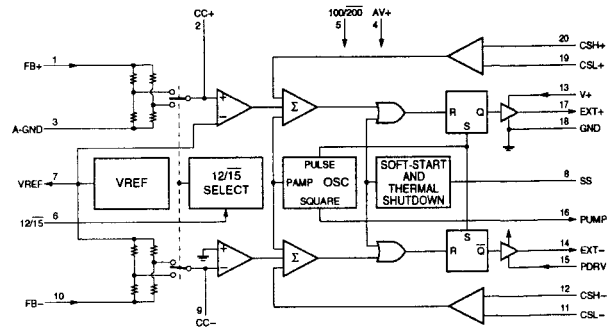
MAX742CWP-TE2 (MAXIM)

DUAL-OUTPUT, SWITCH-MODE REGURATOR
—TOP VIEW—



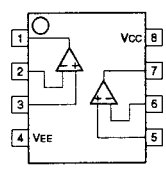
INPUT
12/15 : SELECTS VOUTS (±15 V/±12 V)
100/200 : SELECTS OSC FREQUENCY (200 kHz/100 kHz)
AV+ : ANALOG SUPPLY VOLTAGE INPUT (+5 V)
CC- : INVERTING COMPENSATION CAPACITOR
CC+ : STEP-UP COMPENSATION CAPACITOR
CSH- : CURRENT SENSE HIGH (INVERTING SECTION)
CSH+ : CURRENT SENSE HIGH (STEP-UP SECTION)
CSL- : CURRENT SENSE LOW (INVERTING SECTION)
CSL+ : CURRENT SENSE LOW (STEP-UP SECTION)
FB- : INVERTING SECTION FEEDBACK INPUT
FB+ : STEP-UP FEEDBACK INPUT
PDRV : VOLTAGE INPUT
SS : SOFT-START TIMING CAPACITOR
V+ : HIGH-CURRENT SUPPLY VOLTAGE INPUT (+5 V)

OUTPUT
EXT- : PUSH-PULL OUTPUT
EXT+ : PUSH-PULL OUTPUT
VREF : REFERENCE VOLTAGE OUTPUT



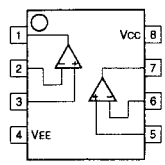
NJM2904V(TE2) (JRC)

DUAL OPERATIONAL AMPLIFIERS
(SINGLE-SUPPLY TYPE)
—TOP VIEW—



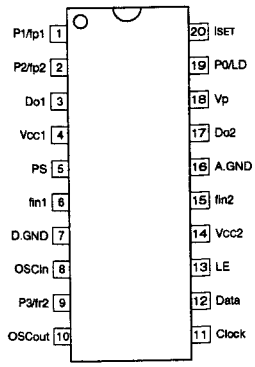
NJM4558V-TE2 (JRC)
NJM4560M (JRC)
NJM4560M-TE2
NJM5532M(TE2) (JRC)

DUAL OPERATIONAL AMPLIFIERS
(DUAL-SUPPLY TYPE)
—TOP VIEW—



MB15U10PFV-ER (FUJITSU)

PLL FREQUENCY SYNTHESIZER WITH PRE-SCALER
—TOP VIEW—

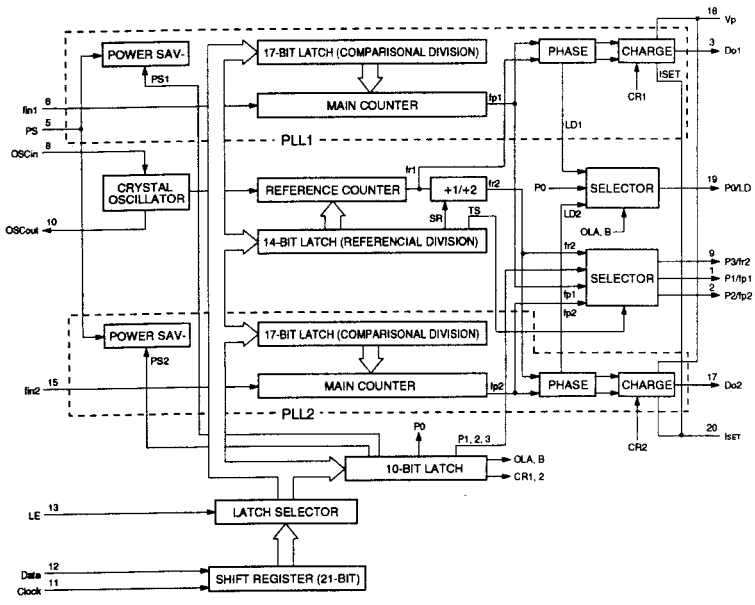


INPUTS

Clock	: CLOCK
Data	: DATA
fin1, fin2	: RF (PLL1, 2)
ISET	: CHARGE PUMP OUTPUT CURRENT ADJUSTMENT
LE	: LOAD ENABLE OF SERIAL INPUT DATA (H : DATA IS SHIFTED INTO A LATCH)
OSCin	: CRYSTAL OSCILLATOR OR TCXO
PS	: POWER SAVING MODE CONTROL (L : POWER SAVING MODE)
Vp	: POWER SUPPLY FOR CHARGE PUMP

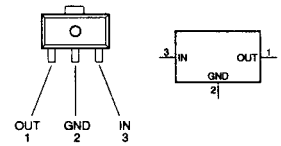
OUTPUTS

Do1, Do2	: CHARGE PUMP (PLL1, 2)
OSCout	: CRYSTAL OSCILLATOR
P0 - P3	: DATA
LD	: LOCK DETECTOR
fp1, fp2	: fp1, fp2 MONITORING
fr2	: fr2 MONITORING



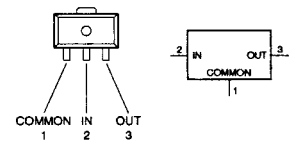
NJM78L12UA-TE1 (JRC)+12 V(0.1 A)
TA78L05F-TE12L (TOSHIBA)

POSITIVE VOLTAGE REGULATOR
—SIDE VIEW—



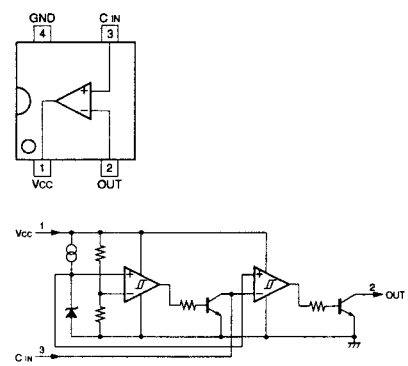
NJM79L12UA (JRC)−12 V (100 mA)
NJM79L12UA(TE1)

NEGATIVE VOLTAGE REGULATOR
—SIDE VIEW—



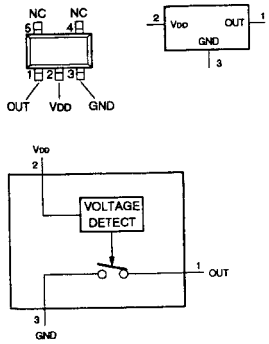
PST575EMT-T1 (MITSUMI)

SYSTEM RESETTING
—TOP VIEW—



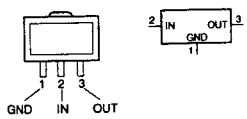
S-80735SN-DZ-T1 (SEIKO INSTR)+3.5 V

C-MOS VOLTAGE DETECTOR
—TOP VIEW—



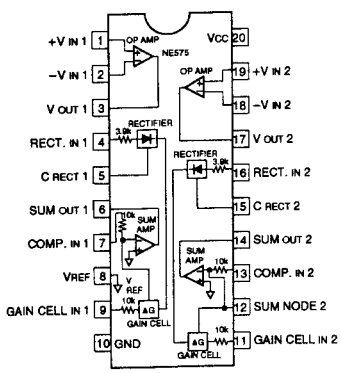
S-81250SGUP-DQD-T1 (SEIKO I&E)+5.0 V

THREE TERMINAL POSITIVE VOLTAGE REGULATOR
—TOP VIEW—



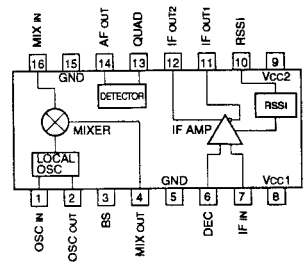
SA575DK-T (PHILIPS)

LOW VOLTAGE COMPANDOR
—TOP VIEW—



TA31161FN(EL) (TOSHIBA)

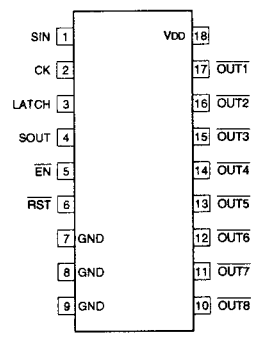
IF DETECTOR
—TOP VIEW—



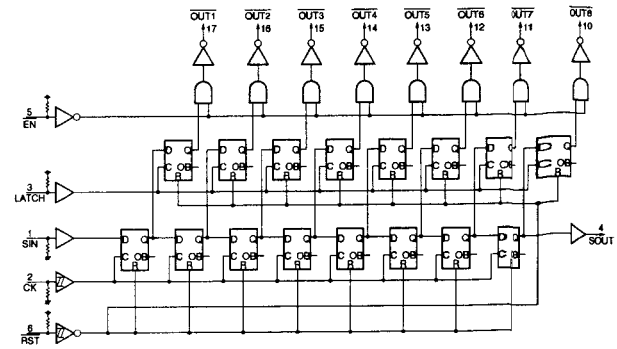
OSC IN, OUT	;	LOCAL OSC INPUT
BS	;	BATTERY SAVE
MIXER OUT	;	MIXER OUTPUT
DEC	;	BIAS FOR IF INPUT
IF IN	;	IF INPUT
RSSI	;	RSSI OUTPUT
IF OUT1, 2	;	IF LIMITTER OUTPUT
QUAD	;	PHASE INPUT FOR FM DETECTOR
AF OUT	;	DEMODULATION SIGNAL OUTPUT
MIX IN	;	MIXER INPUT

TA8122AF (TSB)
TA8122AF(J.TP2)

CMOS SHIFT RESISTOR WITH LATCH
—TOP VIEW—

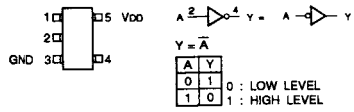


SIN	:	SERIAL DATA INPUT
CK	:	SHIFT CLOCK INPUT
LATCH	:	LATCH INPUT
SOUT	:	SHIFT RESISTOR (FINAL STAGE) OUTPUT
$\overline{EN}$	:	ENABLE INPUT
RST	:	RESET INPUT
$\overline{OUT1}$ - $\overline{OUT8}$	:	SHIFT RESISTOR LATCH OUTPUT1-8



TC4S69F (TOSHIBA)
TC4S69F(TE85R)

C-MOS INVERTER
—TOP VIEW—

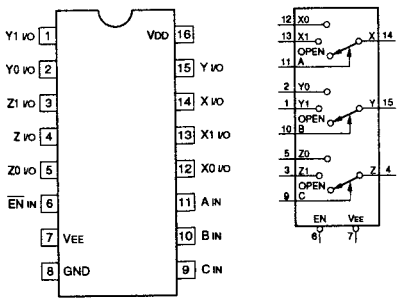


A	Y
0	1
1	0

0 : LOW LEVEL
1 : HIGH LEVEL

TC74HC4053AFT(EL) (TOSHIBA)

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
—TOP VIEW—

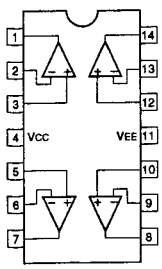


CONTROL INPUTS				ON CHANNEL		
EN	SELECT					
	C	B	A			
0	0	0	0	Z0	Y0	X0
0	0	0	1	Z0	Y0	X1
0	0	1	0	Z0	Y1	X0
0	0	1	1	Z0	Y1	X1
0	1	0	0	Z1	Y0	X0
0	1	0	1	Z1	Y0	X1
0	1	1	0	Z1	Y1	X0
0	1	1	1	Z1	Y1	X1
1	×	×	×	OPEN		

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

UPC4574G2-E2 (NEC)

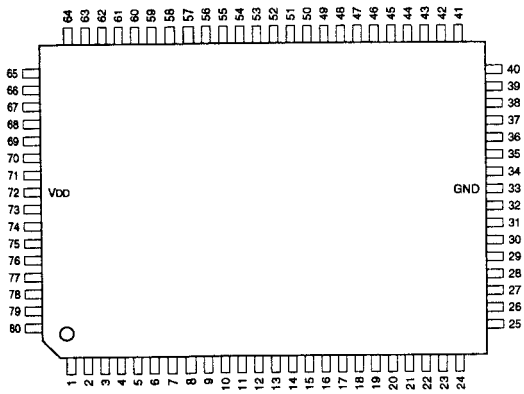
QUAD OPERATIONAL AMPLIFIER
—TOP VIEW—



CPU Pin Description : IC701

CXP83416-051Q

—TOP VIEW—



[Inputs]

Singal Name	Pin No.	Description
VDD	72	Power supply input +5V
VSS	33	GND for power supply input
EXTAL	31	Clock input (8 MHz)
XTAL	32	Clock input (8 MHz: Phase-reversal of EXTAL)
VLC1	37	Bias voltage input for LCD
VLC2	38	Bias voltage input for LCD
VLV3	39	Bias voltage input for LCD
ALO	22	Audio signal level (analog) input
RSSI(A)	23	RF signal level of ANTENNA A input
RSSI(B)	24	RF signal level of ANTENNA B input
MODEL	25	Judgment for model type (L: WRR-802A, H: MB-806A)
ADDRESS	27	Judgment for slot number (MB-806A)
DIST1	28	Selection 1 for destination (model type)
DIST2	29	Selection 2 for destination (model type)
TONE1	13	Tone signal detection (L: detecting)
NOISE	14	Noise signal detection (L: detecting)
TONE2	15	Battery tone signal detection (L: detecting)
PLL LD	16	PLL lock etection (H: Lock)
GP	80	GP operation button
CH	1	CH operation button
+	12	+ operation button
–	18	– operation button
SQL SET	21	RSSI learning mode setting
RST	30	Reset (L: ON)

[Outputs]

Singal Name	Pin No.	Description
MODEL	26	Model selection (L: WRR-802A, MB-806A)
COM0 - COM3	38 - 41	LCD control
SEG0 - SEG19	42 - 61	LCD control
VL	34	Bias voltage control for LCD
LED RF	71	Control for RF LED (H: ON)
LED AF	76	Control for AF LED (H: ON)
LED BATT	20	Control for BATT LED (H: ON)
DIV	66	Diversity control (H: ANT A, L: ANT B)
AFM	67	AF muting control (H: Muting OFF)

[Inputs/Outputs for EEPROM and PLL]

Singal Name	Pin No.	Description
ROM-DO	17	EEPROM control
ROM-CS	68	EEPROM control
ROM-SK/PLL-CLK	69	EEPROM/PLL control
ROM-DI/PLL-DATA	70	EEPROM/PLL control
PLL-LE	77	PLL control

[Inputs/Outputs for communication]

Singal Name	Pin No.	Description
IF-CS	6	Serial I/O control
IF-CLK	7	Serial I/O control
IF-DI	8	Serial I/O control
IF-DO	9	Serial I/O control
TEST	78	Test mode (L: ON)
MASTER/SLAVE	10	MASTER/SLAVE communication

[Others]

Singal Name	Pin No.	Description
PB0/CS1	5	NC
PB6/SI1	11	NC
PC6	19	NC
PE5/PWM0	3	NC
PE6/T0/ADJ	4	NC
PD4/SEG20	62	NC
PD5/SEG21	63	NC
PD6/SEG22	64	NC
PD7/SEG23	65	NC
TX	73	NC
PE1/INT1	79	Connect to GND
PE4/RMC	2	Connect to GND
TEX	74	Connect to GND
—	75	Connect to GND

Section 5
Spare Parts

5-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

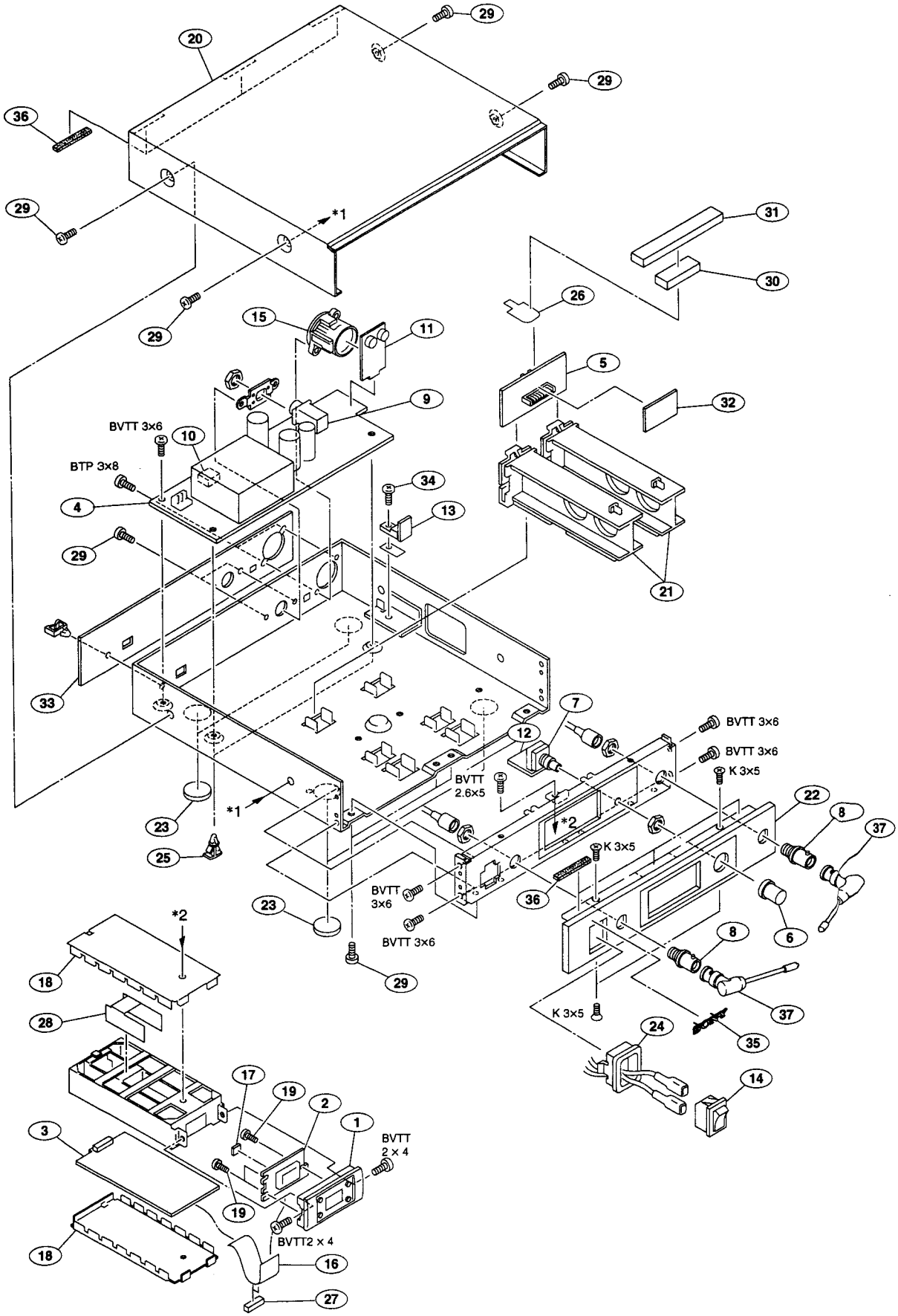
Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.
Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with "o" at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

5-2. Exploded Views

No.	Part No.	SP	Description
1	A-8323-062-A	o	CASE ASSY, F
2	A-8323-063-A	o	LCD ASSY
3	A-8323-071-A	o	TUNER MOUNTED PC BOARD (B) (FOR CE62 MODEL)
	A-8323-074-A	o	TUNER MOUNTED PC BOARD (B) (FOR CE69 MODEL)
	A-8323-093-A	o	TUNER MOUNTED PC BOARD (B) (FOR AU66 MODEL)
4	A-8323-087-A	o	MOTHER ASSY
5	A-8323-096-A	o	CONNECTOR ASSY (FOR AU66 MODEL)
	A-8323-117-A	o	CONNECTOR ASSY (FOR CE62/CE69 MODEL)
6	X-3668-075-0	s	KNOB ASSY
7	1-237-790-11	s	RES, VAR, CARBON 10K
8	1-562-576-11	s	ADAPTOR,CONVERSION (BNC-PIN)
9	1-568-519-31	s	JACK, LARGE TYPE
10	1-569-966-11	s	JACK,DC
11	1-674-358-11	o	PRINTED WIRING BOARD, CN-1923
12	1-674-359-11	o	PRINTED WIRING BOARD, VR-261
13	1-674-360-11	o	PRINTED WIRING BOARD, RE-176
14	1-771-182-11	s	SWITCH, POWER
15	1-778-308-11	o	CONNECTOR (PLUG)
16	1-790-794-11	s	WIRE, FLAT TYPE (35 CORE)
17	2-536-671-01	s	CUSHION
18	2-545-180-03	o	LID
19	2-545-186-01	s	SCREW,+BTP 2X5 (W2)
20	2-545-188-01	o	COVER
21	2-545-189-02	o	RAIL
22	2-545-190-11	o	PANEL, FRONT
23	2-545-194-01	o	FOOT
24	2-545-196-01	o	BARRIER (SW)
25	2-545-206-01	o	SPACER (PB)
26	2-545-363-01	s	PLATE, CONNECTION
27	2-545-371-01	s	GASKET
28	2-545-383-01	s	SPACER (B)
29	2-545-387-11	s	+BTT M3 (S TITE)
30	2-545-442-01	s	GASKET (T1) (PUR)
31	2-545-443-01	s	GASKET (T2) (PUR)
32	2-545-450-01	o	INSULATING SHEET (CN)
33	2-545-768-01	o	SHEET (REAR)
34	4-382-854-01	s	SCREW +PSW 3X8 (STEEL)
35	4-942-568-41	s	EMBLEM (NO.5), SONY
36	9-911-844-99	s	SHEET, SPONGE
Accessory			
37	1-501-952-11	s	ANTENNA
Screws/Washers			
	7-682-246-09	s	SCREW +K 3X5 (EP-FE/ZNBK/CM2)
	7-682-544-01	s	SCREW +B 3X3
	7-685-546-19	s	SCREW +BTP 3X8 (EP-FE/ZNBK/CM2)
	7-685-851-09	s	SCREW +BVTT 2X4 (EP-FE/ZNBK/CM2)
	7-685-861-01	s	SCREW +BVTT 2.6X5 (EP-FE/ZN/CM2)
	7-685-871-01	s	SCREW +BVTT 3X6 (EP-FE/ZN/CM2)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BTP 3x8
BVTT 2.6x5
BVTT 3x6
BVTT 3x6
K 3x5
BVTT 3x6
BVTT 3x6
K 3x5
K 3x5
BVTT 2 x 4
BVTT2 x 4
*1
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*2

5-3. Electrical Parts List

CANON (CN-1923) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
2pcs	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
1pc	1-674-358-11	o	PRINTED WIRING BOARD, CN-1923
C1127	1-163-009-11	s	CAPACITOR,CHIP CERAMIC 1000PF
C1128	1-163-009-11	s	CAPACITOR,CHIP CERAMIC 1000PF
C1129	1-163-009-11	s	CAPACITOR,CHIP CERAMIC 1000PF

CONNECTOR (CN-1922) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8323-096-A	o	CONNECTOR ASSY (CN-1922) (FOR AU66 MODEL)
1pc	A-8323-117-A	o	CONNECTOR ASSY (CN-1922) (FOR CE62,CE69 MODEL)
C2101	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2102	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608 (FOR CE62,CE69 MODEL)
	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608 (FOR AU66 MODEL)
C2103	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C2104	1-135-179-21	s	CAPACITOR,TANTALUM 2.2MF/16V
C2105	1-162-974-11	s	CAPACITOR,CERAMIC 0.01MF/50V F
C2106	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2107	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2108	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2109	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2110	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C2111	1-162-911-11	s	CAPACITOR,CERAMIC 6PF/50V 1608 (FOR CE62,CE69 MODEL)
	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608 (FOR AU66 MODEL)
C2112	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2114	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2201	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2202	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608 (FOR CE62,CE69 MODEL)
	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608 (FOR AU66 MODEL)
C2203	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C2204	1-135-179-21	s	CAPACITOR,TANTALUM 2.2MF/16V
C2205	1-162-974-11	s	CAPACITOR,CERAMIC 0.01MF/50V F
C2206	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2207	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2208	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2209	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2210	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C2211	1-162-911-11	s	CAPACITOR,CERAMIC 6PF/50V 1608 (FOR CE62,CE69 MODEL)
	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608 (FOR AU66 MODEL)
C2212	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2214	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2301	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C2303	1-162-974-11	s	CAPACITOR,CERAMIC 0.01MF/50V F
CN111	1-569-668-11	s	CONNECTOR, 10P
L2101	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L2103	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE62,CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66 MODEL)
L2201	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L2203	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE62,CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66 MODEL)
Q2101	8-729-035-13	s	TRANSISTOR 3SK239AXRTL
Q2201	8-729-035-13	s	TRANSISTOR 3SK239AXRTL
R1301	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R2101	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R2102	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608

(CONNECTOR (CN-1922) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2103	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R2104	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R2105	1-216-812-11	s	RESISTOR,CHIP 180 1/16 1608
R2106	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R2107	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R2108	1-216-800-11	s	RESISTOR,CHIP 18 1/16W 1608
R2109	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R2111	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R2112	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R2113	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R2114	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R2115	1-216-812-11	s	RESISTOR,CHIP 180 1/16 1608
R2116	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R2117	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R2118	1-216-800-11	s	RESISTOR,CHIP 18 1/16W 1608
R2119	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R2301	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2401	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

LCD (DP-305) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8323-063-A	o	LCD ASSY (DP-305)
C801	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C802	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C803	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C804	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C805	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C806	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C807	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C808	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
CN801	1-793-123-11	s	CONNECTOR, FFC/FPC (ZIF) 35P
D806	8-719-064-07	s	DIODE SML-310LTT86
D807	8-719-053-08	s	LED SML-310DTT86
D808	8-719-063-83	s	LED SML-510MWT86
Q801	8-729-429-18	s	TRANSISTOR UN9213
Q802	8-729-429-18	s	TRANSISTOR UN9213
Q803	8-729-429-18	s	TRANSISTOR UN9213
R801	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R802	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R803	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R804	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R805	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R806	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R807	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R808	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R809	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R810	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R811	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R812	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R813	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R814	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R815	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R816	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
S801	1-771-105-11	s	SWITCH, TACTILE
S802	1-771-105-11	s	SWITCH, TACTILE
S803	1-771-105-11	s	SWITCH, TACTILE
S804	1-771-105-11	s	SWITCH, TACTILE

MOTHER (MB-872) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8323-087-A	o	MOTHER ASSY (MB-872)
C1001	1-115-757-11	s	CAPACITOR ELECT 330MF/16V(105C
C1002	1-163-809-11	s	CAPACITOR,CHIP CERAMIC 0.047MF
C1003	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C1004	1-115-758-11	s	CAPACITOR ELECT 470MF/16V 105C
C1005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1006	1-162-967-11	s	CAPACITOR,CERAMIC 3300PF/50V B
C1007	1-135-259-11	s	CAPACITOR TANTALUM 10MF/6.3VF
C1008	1-135-149-21	s	CAPACITOR TANTALUM 2.2MF/10V
C1009	1-162-967-11	s	CAPACITOR,CERAMIC 3300PF/50V B
C1010	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C1011	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C1012	1-115-758-11	s	CAPACITOR ELECT 470MF/16V 105C
C1013	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1014	1-115-758-11	s	CAPACITOR ELECT 470MF/16V 105C
C1015	1-115-758-11	s	CAPACITOR ELECT 470MF/16V 105C
C1016	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C1017	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C1018	1-115-757-11	s	CAPACITOR ELECT 330MF/16V(105C
C1019	1-115-757-11	s	CAPACITOR ELECT 330MF/16V(105C
C1020	1-128-548-11	s	CAPACITOR,ELECT 4700MF/25V
C1021	1-126-943-11	s	CAPACITOR,ELECT 2200MF/25V
C1022	1-163-809-11	s	CAPACITOR,CHIP CERAMIC 0.047MF
C1023	1-163-809-11	s	CAPACITOR,CHIP CERAMIC 0.047MF
C1027	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1028	1-126-103-11	s	CAPACITOR,ELECT 470MF/16V 105C
C1029	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1030	1-126-103-11	s	CAPACITOR,ELECT 470MF/16V 105C
C1031	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C1032	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C1033	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1034	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1035	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1036	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1037	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1103	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1104	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1105	1-162-967-11	s	CAPACITOR,CERAMIC 3300PF/50V B
C1106	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1107	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1108	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1109	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1110	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1111	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1112	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C1113	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C1114	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C1115	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C1118	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C1119	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C1120	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C1121	1-136-153-00	s	CAPACITOR,FILM 0.01MF/50V
C1125	1-164-218-11	s	CAPACITOR,CERAMIC 180PF/50V CH
C1201	1-128-548-11	s	CAPACITOR,ELECT 4700MF/25V
C1202	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1203	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1204	1-113-981-11	s	CAPACITOR TANTALUM 22MF/20V
C1205	1-113-981-11	s	CAPACITOR TANTALUM 22MF/20V

(MOTHER (MB-872) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C1206	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1207	1-113-981-11	s	CAPACITOR TANTALUM 22MF/20V
C1208	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C1306	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1307	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1308	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1309	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1310	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1311	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1312	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C1313	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C1314	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C1315	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C1322	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C1323	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C1324	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
CN1001	1-564-104-00	o	PIN,CONNECTOR 3P
CN1002	1-564-706-11	o	PIN,CONNECTOR (4P)
CN1003	1-564-705-11	o	PIN,CONNECTOR (3P)
CN1101	1-564-705-11	o	PIN,CONNECTOR (3P)
CN1103	1-564-706-11	o	PIN,CONNECTOR (4P)
D1002	8-719-980-38	s	DIODE SB07-03C (RECTI)
D1003	8-719-980-38	s	DIODE SB07-03C (RECTI)
D1004	8-719-210-39	s	DIODE EC10QS04
D1005	8-719-210-39	s	DIODE EC10QS04
D1006	8-719-210-39	s	DIODE EC10QS04
D1007	8-719-988-61	s	DIODE 1SS355TE-17
D1008	8-719-988-61	s	DIODE 1SS355TE-17
D1101	8-719-024-71	s	DIODE 1SS362-TE85L
D1102	8-719-024-71	s	DIODE 1SS362-TE85L
D1202	8-719-975-40	s	DIODE RB411D (RECTI)
D1203	8-719-975-40	s	DIODE RB411D (RECTI)
D1301	8-719-024-71	s	DIODE 1SS362-TE85L
D1302	8-719-024-71	s	DIODE 1SS362-TE85L
IC1001	8-759-466-72	s	IC MAX742CWP-TE2
IC1002	8-759-095-59	s	IC M5237ML-TP1
IC1004	8-759-175-30	s	IC NJM78L12UA (TE1)
IC1005	8-759-712-00	s	IC NJM79L12UA
IC1101	8-759-553-67	s	IC UPC4574G2-E2
IC1102	8-759-745-64	s	IC NJM4560M
IC1103	8-759-700-94	s	IC NJM5532M
IC1201	8-759-355-28	s	IC S-80735SN-DZ-T1
IC1202	8-759-209-57	s	IC TC4S69F
IC1203	8-759-209-57	s	IC TC4S69F
IC1302	8-759-745-64	s	IC NJM4560M
IC1303	8-759-700-94	s	IC NJM5532M
J1001	1-569-966-11	s	JACK,DC
J1101	1-568-519-31	s	JACK,LARGE (6.3MM)
L1001	1-411-587-21	s	COIL, CHOKE 150UH
L1002	1-411-587-21	s	COIL, CHOKE 150UH
L1003	1-416-357-11	s	COIL,CHOKE
L1004	1-414-119-11	s	INDUCTOR (SMALL TYPE)
L1005	1-416-358-11	s	COIL, CHOKE
L1006	1-424-618-11	s	FILTER,NOISE
Q1001	8-729-822-84	s	TRANSISTOR 2SB1202FAST
Q1002	8-729-041-36	s	TRANSISTOR MTD20N06HDLT4

(MOTHER (MB-872) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q1003	8-729-041-37	s	TRANSISTOR 2SJ377(TE16L)
Q1004	8-729-037-53	s	TRANSISTOR 2SB1462J-QR(TX).SO
Q1101	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1102	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1103	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1104	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1201	8-729-425-64	s	TRANSISTOR 2SD2216Q
Q1202	8-729-425-64	s	TRANSISTOR 2SD2216Q
Q1203	8-729-425-64	s	TRANSISTOR 2SD2216Q
Q1301	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1302	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1303	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
Q1304	8-729-015-39	s	TRANSISTOR DTC323TK 300MW
R1001	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R1002	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1004	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1005	1-220-906-11	s	RESISTOR,METALPLATE FIXED 0.15
R1006	1-217-611-00	s	RESISTOR,METAL 0.1/2W
R1007	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R1008	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1009	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R1014	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R1015	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R1016	1-216-192-00	s	RESISTOR,CHIP 560 1/8W (3216)
R1017	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1018	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1101	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R1102	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1103	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R1104	1-216-835-11	s	RESISTOR,CHIP 15K 1/16W
R1105	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1106	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1107	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1108	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1109	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1110	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1111	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1112	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1113	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1114	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1117	1-216-811-11	s	RESISTOR, CHIP 150 1/16W 1608
R1118	1-216-811-11	s	RESISTOR, CHIP 150 1/16W 1608
R1119	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R1120	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R1121	1-216-045-00	s	RESISTOR,CHIP 680 1/10W(2012)
R1122	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1123	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1124	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R1127	1-218-285-11	s	RESISTOR,CHIP 75 1/16W (1608)
R1128	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R1131	1-218-285-11	s	RESISTOR,CHIP 75 1/16W (1608)
R1202	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1203	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
R1204	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R1205	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R1206	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R1207	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R1307	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)

(MOTHER (MB-872) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1308	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1309	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1310	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1311	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1312	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1313	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1314	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R1317	1-216-811-11	s	RESISTOR, CHIP 150 1/16W 1608
R1318	1-216-811-11	s	RESISTOR, CHIP 150 1/16W 1608
R1322	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1323	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
S1801	1-692-990-21	s	SWITCH, SLIDE

REGULATOR (RE-176) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-674-360-11	o	PRINTED WIRING BOARD, RE-176
C1209	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1210	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
IC1006	8-759-347-20	s	IC KIA7809PI-S

TUNER (RF-92) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8323-071-A	o	TUNER MOUNTED PC BOARD (B) (FOR CE62 MODEL)
1pc	A-8323-074-A	o	TUNER MOUNTED PC BOARD (B) (FOR CE69 MODEL)
1pc	A-8323-093-A	o	TUNER MOUNTED PC BOARD (B) (FOR AU66 MODEL)
C101	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C102	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C106	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C107	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C108	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C109	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C110	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C111	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B (FOR AU66,CE62 MODEL)
	1-162-946-11	s	CAPACITOR,CERAMIC 27PF/50V SL (FOR CE69 MODEL)
C112	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C113	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C114	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C115	1-162-911-11	s	CAPACITOR,CERAMIC 6PF/50V 1608
C116	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C117	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C118	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C120	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C123	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C124	1-162-926-11	s	CAPACITOR,CERAMIC 82PF/50V CH
C125	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C126	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C128	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C129	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C131	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C151	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C161	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C162	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C163	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C164	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C182	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C183	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C184	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C185	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C186	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C187	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C200	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C201	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C202	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C203	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C204	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C205	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C207	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C208	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C209	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C212	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C214	1-162-979-11	s	CAPACITOR,CERAMIC 2700PF/50V
C215	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C216	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C217	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF

(TUNER (RF-92) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C218	1-104-553-11	s	CAPACITOR FILM 0.015MF/16V
C220	1-104-539-11	s	CAPACITOR, CHIP FILM 0.001MF
C221	1-104-544-11	s	CAPACITOR, CHIP FILM 0.0027MF
C222	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C224	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C225	1-104-559-11	s	CAPACITOR FILM 0.047MF/16V
C226	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C228	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C229	1-113-601-11	s	CAPACITOR,CHIP TANTALUM 1MF
C230	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C231	1-113-996-11	s	CAPACITOR TANTALUM 220MF/4V
C233	1-113-601-11	s	CAPACITOR,CHIP TANTALUM 1MF
C234	1-104-559-11	s	CAPACITOR FILM 0.047MF/16V
C235	1-113-600-11	s	CAPACITOR,CHIP TANTALUM 2.2MF
C236	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C237	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C239	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C240	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C241	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C242	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C243	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C244	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C245	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C246	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C247	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C248	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C249	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C250	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C251	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C252	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C253	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C254	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C255	1-117-919-11	s	CAPACITOR, CHIP TANTALUM10MF
C256	1-162-913-11	s	CAPACITOR,CHIP CERAMIC 8PF/50V
C257	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C258	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C259	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C260	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C261	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C265	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C266	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C267	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C268	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C270	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C291	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C292	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C302	1-162-907-11	s	CAPACITOR,CERAMIC 2PF/50V(CK)
C303	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C304	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C305	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C306	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C307	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C308	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C309	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C310	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C312	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C313	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C314	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C315	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B

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Ref. No. or Q'ty	Part No.	SP	Description
C316	1-162-918-11	s	CAPACITOR,CERAMIC 18PF/50V CH
C318	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C319	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C320	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C321	1-162-918-11	s	CAPACITOR,CERAMIC 18PF/50V CH
C401	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C402	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C406	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C407	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C408	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C409	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C410	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C411	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B (FOR AU66,CE62 MODEL)
	1-162-946-11	s	CAPACITOR,CERAMIC 27PF/50V SL (FOR CE69 MODEL)
C412	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C413	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C414	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C415	1-162-911-11	s	CAPACITOR,CERAMIC 6PF/50V 1608
C416	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C417	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C418	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C420	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C423	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C424	1-162-926-11	s	CAPACITOR,CERAMIC 82PF/50V CH
C425	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C426	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C428	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C429	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C431	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C451	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C461	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C462	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C463	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C464	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C482	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C483	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C484	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C485	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C486	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C487	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C500	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C501	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C502	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C503	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C601	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C653	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C654	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C655	1-113-990-11	s	CAPACITOR TANTALUM 15MF/16V
C657	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C658	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C659	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C660	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF (FOR AU66,CE69 MODEL)
C661	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C662	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C663	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C664	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(TUNER (RF-92) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C665	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C667	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C668	1-135-181-21	s	CAPACITOR TANTALUM 4.7MF/6.3V
C669	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C670	1-113-990-11	s	CAPACITOR TANTALUM 15MF/16V
C671	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C672	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C673	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C674	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C675	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C676	1-115-581-11	s	CAPACITOR CHIP ELECT 100MF/16V
C681	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C683	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C684	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C685	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C686	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C687	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C688	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C689	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C701	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C702	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C703	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C704	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C705	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C706	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C709	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C710	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C722	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C740	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C741	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C742	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C753	1-162-907-11	s	CAPACITOR,CERAMIC 2PF/50V(CK)
C755	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C756	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C757	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C780	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C781	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
CF101	1-760-287-11	s	FILTER, CERAMIC
CF102	1-760-287-11	s	FILTER, CERAMIC
CF103	1-760-287-11	s	FILTER, CERAMIC
CF401	1-760-287-11	s	FILTER, CERAMIC
CF402	1-760-287-11	s	FILTER, CERAMIC
CF403	1-760-287-11	s	FILTER, CERAMIC
CN101	1-569-671-11	s	CONNECTOR, 10P
CN701	1-573-806-21	s	PIN,CONNECTOR (6P)(SMD)(1.5MM)
CN702	1-793-122-11	s	CONNECTOR, FFC/FPC (ZIF) 35P
CP302	1-760-815-11	s	OSCILLATOR, CRYSTAL
CP601	1-781-474-11	s	OSCILLATOR (VOLTAGE VAR TYPE) (FOR AU66,CE62 MODEL)
	1-781-475-11	s	OSCILLATOR (VOLTAGE VAR TYPE) (FOR CE69 MODEL)
CT701	1-141-437-11	s	CAPACITOR,TRIMMER (CHIP TYPE)
D201	8-719-988-61	s	DIODE 1SS355TE-17
D202	8-719-988-61	s	DIODE 1SS355TE-17
D203	8-719-988-61	s	DIODE 1SS355TE-17
D204	8-719-988-61	s	DIODE 1SS355TE-17
D205	8-719-064-08	s	DIODE HZU6.8B2TRF

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Ref. No. or Q'ty	Part No.	SP	Description
D206	8-719-988-61	s	DIODE 1SS355TE-17
D207	8-719-988-61	s	DIODE 1SS355TE-17
D210	8-719-024-71	s	DIODE 1SS362-TE85L
D211	8-719-024-71	s	DIODE 1SS362-TE85L
D301	8-719-988-61	s	DIODE 1SS355TE-17
D602	8-719-047-98	s	DIODE HZU5.6B2TRF
D704	8-719-988-61	s	DIODE 1SS355TE-17
FL101	1-233-951-11	s	FILTER, BAND PASS (FOR AU66 MODEL)
	1-233-952-11	s	FILTER, BAND PASS (FOR CE69 MODEL)
	1-234-093-11	s	FILTER, BAND PASS (FOR CE62 MODEL)
FL102	1-233-951-11	s	FILTER, BAND PASS (FOR AU66 MODEL)
	1-233-952-11	s	FILTER, BAND PASS (FOR CE69 MODEL)
	1-234-093-11	s	FILTER, BAND PASS (FOR CE62 MODEL)
FL401	1-233-951-11	s	FILTER, BAND PASS (FOR AU66 MODEL)
	1-233-952-11	s	FILTER, BAND PASS (FOR CE69 MODEL)
	1-234-093-11	s	FILTER, BAND PASS (FOR CE62 MODEL)
FL402	1-233-951-11	s	FILTER, BAND PASS (FOR AU66 MODEL)
	1-233-952-11	s	FILTER, BAND PASS (FOR CE69 MODEL)
	1-234-093-11	s	FILTER, BAND PASS (FOR CE62 MODEL)
IC101	8-759-230-39	s	IC TA8122AF
IC102	8-759-355-20	s	IC TA31161FN(EL)
IC201	8-759-278-58	s	IC NJM4558V (TE2)
IC202	8-759-523-02	s	IC TC74HC4053AFT(EL)
IC203	8-759-278-58	s	IC NJM4558V (TE2)
IC204	8-759-278-58	s	IC NJM4558V (TE2)
IC205	8-759-278-58	s	IC NJM4558V (TE2)
IC206	8-759-278-58	s	IC NJM4558V (TE2)
IC207	8-759-539-60	s	IC SA575DK-T
IC208	8-759-337-40	s	IC NJM2904V(TE2)
IC209	8-759-337-40	s	IC NJM2904V(TE2)
IC210	8-759-523-02	s	IC TC74HC4053AFT(EL)
IC401	8-759-230-39	s	IC TA8122AF
IC402	8-759-355-20	s	IC TA31161FN(EL)
IC652	8-759-161-52	s	IC S-81250PG-PD-S (FOR BOARD NO.SUFFIX -11)
	8-759-234-08	s	IC TA78L05F (FOR BOARD NO.SUFFIX -12)
IC653	8-759-161-52	s	IC S-81250PG-PD-S (FOR BOARD NO.SUFFIX -11)
	8-759-234-08	s	IC TA78L05F (FOR BOARD NO.SUFFIX -12)
IC701	8-752-906-29	o	IC CXP83416-051Q
IC706	8-759-091-75	s	IC PST575EMT-T1
L101	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66,CE62 MODEL)
L102	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66,CE62 MODEL)

(TUNER (RF-92) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L103	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR CE69 MODEL)
	1-414-463-41	s	INDUCTOR, CHIP (J) 10NH (FOR AU66,CE62 MODEL)
L104	1-414-460-11	s	INDUCTOR, CHIP (S) 5.6NH (FOR CE69 MODEL)
	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR AU66,CE62 MODEL)
L105	1-412-939-11	s	INDUCTOR 1.0UH (2520)
L106	1-412-932-21	s	INDUCTOR 0.27UH (2520)
L107	1-412-991-31	s	INDUCTOR (SMALL TYPE) 10.00UH
L109	1-412-955-11	s	INDUCTOR 22UH (2520)
L110	1-414-691-11	s	INDUCTOR, CHIP 100NH
L112	1-414-691-11	s	INDUCTOR, CHIP 100NH
L113	1-412-991-31	s	INDUCTOR (SMALL TYPE) 10.00UH
L114	1-412-955-11	s	INDUCTOR 22UH (2520)
L302	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L303	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L304	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L305	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH
L306	1-414-460-11	s	INDUCTOR, CHIP (S) 5.6NH
L307	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L308	1-414-460-11	s	INDUCTOR, CHIP (S) 5.6NH
L309	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L310	1-412-939-11	s	INDUCTOR 1.0UH (2520)
L311	1-412-968-11	s	INDUCTOR (SMALL TYPE)
L312	1-412-969-31	s	INDUCTOR (SMALL TYPE)
L313	1-412-968-11	s	INDUCTOR (SMALL TYPE)
L314	1-412-969-31	s	INDUCTOR (SMALL TYPE)
L401	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66,CE62 MODEL)
L402	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR CE69 MODEL)
	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR AU66,CE62 MODEL)
L403	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH (FOR CE69 MODEL)
	1-414-463-41	s	INDUCTOR, CHIP (J) 10NH (FOR AU66,CE62 MODEL)
L404	1-414-460-11	s	INDUCTOR, CHIP (S) 5.6NH (FOR CE69 MODEL)
	1-414-461-31	s	INDUCTOR, CHIP (K) 6.8NH (FOR AU66,CE62 MODEL)
L405	1-412-939-11	s	INDUCTOR 1.0UH (2520)
L406	1-412-932-21	s	INDUCTOR 0.27UH (2520)
L407	1-412-991-31	s	INDUCTOR (SMALL TYPE) 10.00UH
L409	1-412-955-11	s	INDUCTOR 22UH (2520)
L410	1-414-691-11	s	INDUCTOR, CHIP 100NH
L412	1-414-691-11	s	INDUCTOR, CHIP 100NH
L413	1-412-991-31	s	INDUCTOR (SMALL TYPE) 10.00UH
L414	1-412-955-11	s	INDUCTOR 22UH (2520)
L601	1-412-979-21	s	INDUCTOR (SMALL TYPE)
L651	1-416-357-11	s	COIL,CHOKE
L652	1-412-979-21	s	INDUCTOR (SMALL TYPE)
L653	1-412-979-21	s	INDUCTOR (SMALL TYPE)
L654	1-414-470-31	s	INDUCTOR, CHIP (J) 39NH
L655	1-412-979-21	s	INDUCTOR (SMALL TYPE)
L701	1-412-955-11	s	INDUCTOR 22UH (2520)
Q101	8-729-035-13	s	TRANSISTOR 3SK239AXRTL

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Ref. No. or Q'ty	Part No.	SP	Description
Q102	8-729-047-26	s	TRANSISTOR 3SK255-T2
Q103	8-729-047-26	s	TRANSISTOR 3SK255-T2
Q104	8-729-047-25	s	TRANSISTOR 3SK254-T2
Q105	8-729-047-25	s	TRANSISTOR 3SK254-T2
Q201	8-729-800-37	s	TRANSISTOR 2SD1048X7
Q203	8-729-429-18	s	TRANSISTOR UN9213
Q302	8-729-033-87	s	TRANSISTOR 2SC4726LN-TLPQ
Q303	8-729-033-87	s	TRANSISTOR 2SC4726LN-TLPQ
Q304	8-729-016-34	s	TRANSISTOR 2SC4915-O-TE85L
Q305	8-729-016-34	s	TRANSISTOR 2SC4915-O-TE85L
Q401	8-729-035-13	s	TRANSISTOR 3SK239AXRTL
Q402	8-729-047-26	s	TRANSISTOR 3SK255-T2
Q403	8-729-047-26	s	TRANSISTOR 3SK255-T2
Q404	8-729-047-25	s	TRANSISTOR 3SK254-T2
Q405	8-729-047-25	s	TRANSISTOR 3SK254-T2
Q601	8-729-425-64	s	TRANSISTOR 2SD2216Q
Q752	8-729-425-64	s	TRANSISTOR 2SD2216Q
R101	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R103	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R104	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R105	1-216-812-11	s	RESISTOR,CHIP 180 1/16 1608
R107	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R108	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R110	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R111	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R113	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R114	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R115	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R116	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16(1608)
R118	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R119	1-216-840-11	s	RESISTOR,CHIP 39K 1/16W 1608
R121	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R122	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R123	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R124	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R125	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R126	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R127	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R128	1-216-814-11	s	RESISTOR,CHIP 270 1/16 1608
R129	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R136	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R150	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R180	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R201	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R202	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R203	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R204	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R205	1-216-832-11	s	RESISTOR,CHIP 8.2K 1/16W 1608
R206	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R207	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R208	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R209	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R210	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R211	1-216-832-11	s	RESISTOR,CHIP 8.2K 1/16W 1608
R212	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R213	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R214	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R215	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R216	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R217	1-216-842-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R218	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R219	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R220	1-216-835-11	s	RESISTOR,CHIP 15K 1/16W
R221	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R222	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R223	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R224	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R225	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16(1608)
R226	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R227	1-216-838-11	s	RESISTOR CHIP 27K 1/16W(1608)
R228	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R229	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R230	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R231	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R232	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R233	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R234	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R235	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R236	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R237	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R238	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R239	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R240	1-216-842-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R241	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R247	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R248	1-216-842-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R249	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R250	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R251	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R252	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R253	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R254	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R255	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R256	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R257	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R258	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R259	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R260	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
R261	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
R262	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R263	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R264	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R265	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R266	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R267	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R268	1-216-842-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R269	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R270	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R271	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R272	1-216-853-11	s	RESISTOR,CHIP 470K 1/16W 1608
R273	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R274	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R275	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R276	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R277	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R278	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R279	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R280	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R281	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R282	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R283	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R284	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R285	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16(1608)
R286	1-216-854-11	s	RESISTOR, CHIP 560K 1/16W
R287	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R289	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16(1608)
R291	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R292	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R293	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R294	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R295	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R296	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R297	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R298	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R299	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R301	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R302	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R303	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R304	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R305	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R306	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R307	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R308	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R309	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R310	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R311	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R312	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R313	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R314	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R315	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R401	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R403	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R404	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R405	1-216-812-11	s	RESISTOR,CHIP 180 1/16 1608
R407	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R408	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R410	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R411	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R413	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R414	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R415	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R416	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16(1608)
R418	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R419	1-216-840-11	s	RESISTOR,CHIP 39K 1/16W 1608
R421	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R422	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R423	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R424	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R425	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R426	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R427	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R428	1-216-814-11	s	RESISTOR,CHIP 270 1/16 1608
R429	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R436	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R450	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R480	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608

(TUNER (RF-92) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R654	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R655	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R657	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R658	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R662	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R674	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R676	1-216-823-11	s	RESISTOR, CHIP 1.5K
R681	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R682	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R683	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R684	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R705	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R706	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R707	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R708	1-216-836-11	s	RESISTOR, CHIP 18K 1/16W 1608
R710	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R711	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R747	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R748	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R749	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R753	1-216-849-11	s	RESISTOR,CHIP 220K 1/16 1608
R754	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R755	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R756	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R757	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R758	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R759	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R760	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R761	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R762	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R763	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R764	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R765	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R766	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R767	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R770	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R790	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R791	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R792	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R797	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1753	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608) (FOR CE69 MODEL)
R1758	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608) (FOR AU66,CE62 MODEL)
R1760	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608) (FOR CE62 MODEL)
R1761	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608) (FOR AU66,CE69 MODEL)
RV201	1-238-854-11	s	RESISTOR,ADJ 2.2K (CERMET)
RV202	1-238-854-11	s	RESISTOR,ADJ 2.2K (CERMET)
RV205	1-238-857-11	s	RESISTOR ADJ 22K (CERMET)
S708	1-762-526-11	s	SWITCH
SWF101	1-760-028-11	s	FILTER, SAW
SWF401	1-760-028-11	s	FILTER, SAW
T101	1-406-784-21	s	TRANSFORMER, IF
T102	1-406-782-21	s	TRANSFORMER, IF
T103	1-411-494-11	s	DETECTOR COIL (MPX)
T401	1-406-784-21	s	TRANSFORMER, IF

(TUNER (RF-92) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
T402	1-406-782-21	s	TRANSFORMER, IF
T403	1-411-494-11	s	DETECTOR COIL (MPX)
X201	1-567-098-41	s	VIBRATOR,CRYSTAL (32.768MHZ)
X202	1-567-098-41	s	VIBRATOR,CRYSTAL (32.768MHZ)
X203	1-767-100-11	s	VIBRATOR, CRYSTAL
X701	1-767-636-11	s	VIBRATOR, CRYSTAL

VOLUME (VR-261) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-674-359-11	o	PRINTED WIRING BOARD, VR-261
RV1201	1-237-790-11	s	RESISTOR,VAR,CARBON 10K

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
2pcs	1-562-576-11	s	ADAPTOR,CONVERSION (BNC-PIN)
1pc	1-771-182-11	s	SWITCH, POWER
1pc	1-778-308-11	o	CONNECTOR (PLUG)
1pc	1-790-794-11	s	WIRE, FLAT TYPE (35 CORE)

5-4. Accessories Supplied

Ref. No. or Q'ty	Part No.	SP	Description
1pc	3-867-234-21	s	MANUAL, INSTRUCTION (FOR CE62,CE69 MODEL)
1pc	3-867-234-31	s	MANUAL, INSTRUCTION (FOR AU66 MODEL)
1pc	⚠ 1-467-572-21	s	ADAPTOR, AC (FOR CE62 MODEL)
1pc	⚠ 1-467-852-12	s	ADAPTOR, AC (FOR AU66 MODEL)
1pc	⚠ 1-473-995-11	s	ADAPTOR, AC (FOR CE69 MODEL)
2pcs	1-501-952-11	s	ANTENNA
1pc	2-545-811-01	o	LABEL, 5 COLOR (FOR CE62,CE69 MODEL)

Section 6
Block Diagrams

Outline

The WRR-802A is composed of tuner unit (RF-92, DP-305 board), power supply block, audio block, and following boards.

Board name	Q'ty	Reference number
MB-872	1	1000s to 1300s
CN-1922	1	2000s to 2300s
CN-1923	1	1100s
VR-261	1	1200s
RE-176	1	1000s, 1200s
Tuner unit		
RF-92	1	100s to 700s
DP-305	1	800s

Tuner Unit

• RF-92 board

This board consists of the RF block, audio block, CPU block and the voltage regulator block. This board receives the RF signal input from the antenna A and B and outputs the demodulated audio signal. The RF circuit is used superheterodyne techniques. The same RF block is used for both antenna "A" and antenna "B". The RF block consists of RF amplifier circuit, 1st mixer circuit, 2nd mixer circuit, IF circuit, FM detector circuit, 1st local circuit and 2nd local circuit. The RF signal which is input from the antenna A and B are passed through band pass filter, amplified by RF amplifier, passed through band pass filter and input to 1st mixer circuit. The RF signal is mixed with the 1st local signal in the 1st mixer circuit where the input signal is converted to the 1st IF signal (150.75MHz). The 1st IF signal is mixed with the 2nd local signal at the 2nd mixer circuit where the 1st IF signal is converted to the 2nd IF signal (10.7MHz). The 2nd IF signal is detected by the FM detector IC which outputs audio signal. The audio signal is sent to the audio block. The 2nd IF signal is converted to the RSSI signal by the IF amplifier and is output to the CPU. The 1st local signal is generated by the PLL circuit. The 2nd local signal is generated by the crystal oscillator. The audio block consists of the tone signal detector circuit, noise signal detector circuit, diversity switching circuit, muting circuit, de-emphasis circuit, expander circuit and audio amplifier circuit. The FM detector outputs (audio outputs AF(A) and (B)) of the RF block are amplified by the AF amplifier (A) and AF amplifier (B) and is sent to the diversity switching circuit. The diversity switching is controlled by the DIV signal from the CPU. The audio output signal from the diversity switching circuit is passed through the muting circuit, de-emphasis circuit, low pass filter circuit and expander circuit then amplified by the AF amplifier.

• DP-305 board

The DP-305 board is composed of display block and operation control block. The display block has the LCD which indicates the various status of group and channels and the AF indicator LED, RF indicator LED and BATT indicator LED. The operation control block consists of GP(S801),CH(S802),+(S803),and −(S804) switches which perform the setting such as group setting and channel setting.

Power Supply Block

The DC +9 V from the AC power adapter is input to the MB-872 board, it is converted up to ±15 V with DC-DC converter (IC1001), then output as ±12 V from the voltage regulator (IC1004/IC1005). Generated ±12 V are used for the power of audio output amplifier (IC1101) on the MB-872 board. Also, to generate +9 V, converted +15 V is input to the voltage regulator (IC1006), then obtained +9 V is supplied to the tuner unit.

Audio Block

The audio signal (AF) output from the tuner unit is input to the MB-872 board through the CN-1922 board. Signals is then output from the output connectors (XLR and TRS phone connectors) after passing through the filter amplifier (IC1101), output amplifier (IC1101) and audio muting circuit.

MB-872 board

The power supply block and audio signal output block are mounted on this board. This board consists of the DC-DC converter circuits (DC +9 V to ±15 V), voltage regulator circuits (±15 V to ±12 V), audio output circuit and audio signal muting circuit.

CN-1922 board

This board functions as a relay board for signal buffering between the tuner unit and MB-872 board.

CN-1923 board

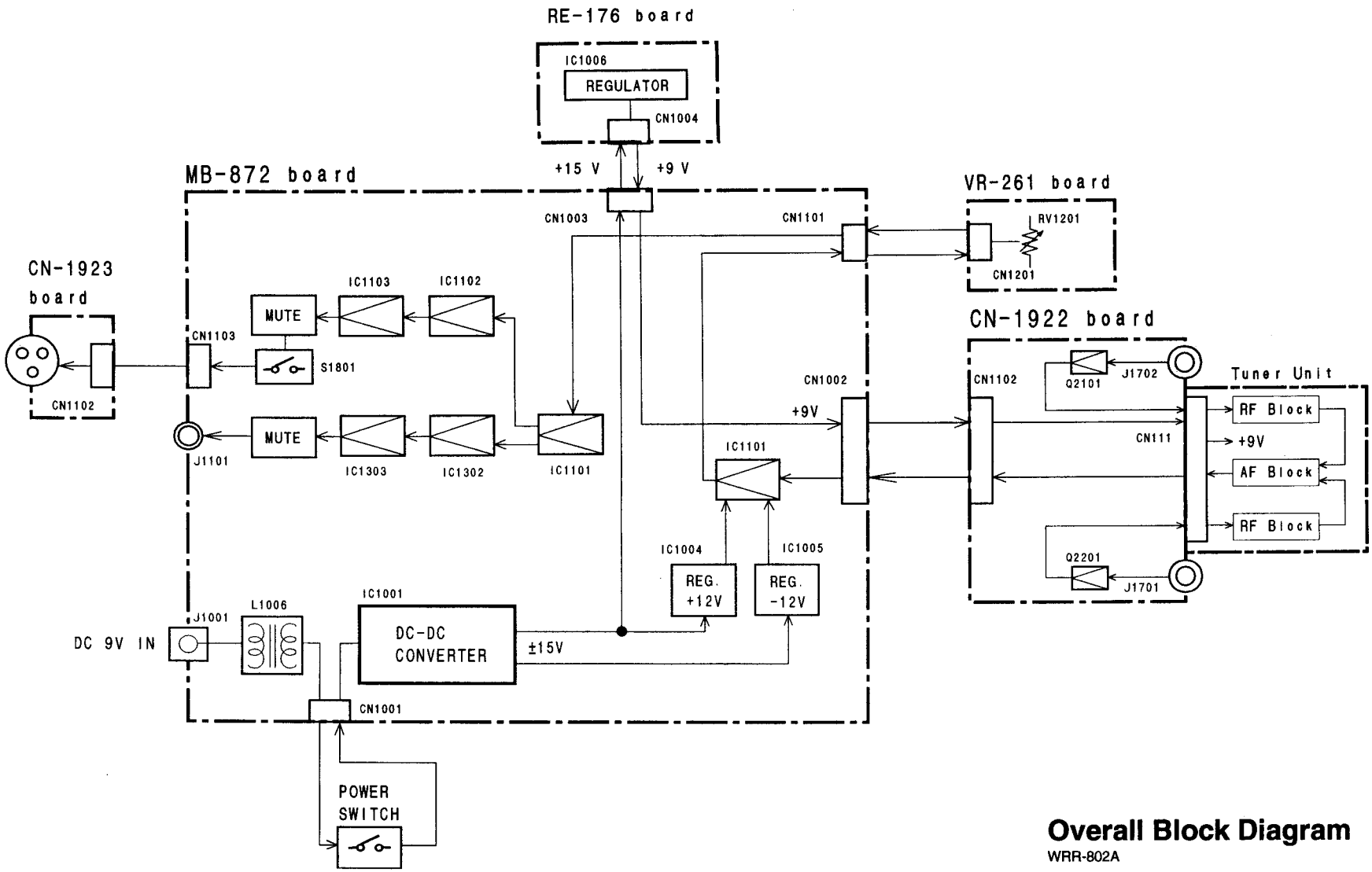
The audio output connector (XLR type) is mounted on this board.

VR-261 board

This board is functioned as an audio output adjustment.

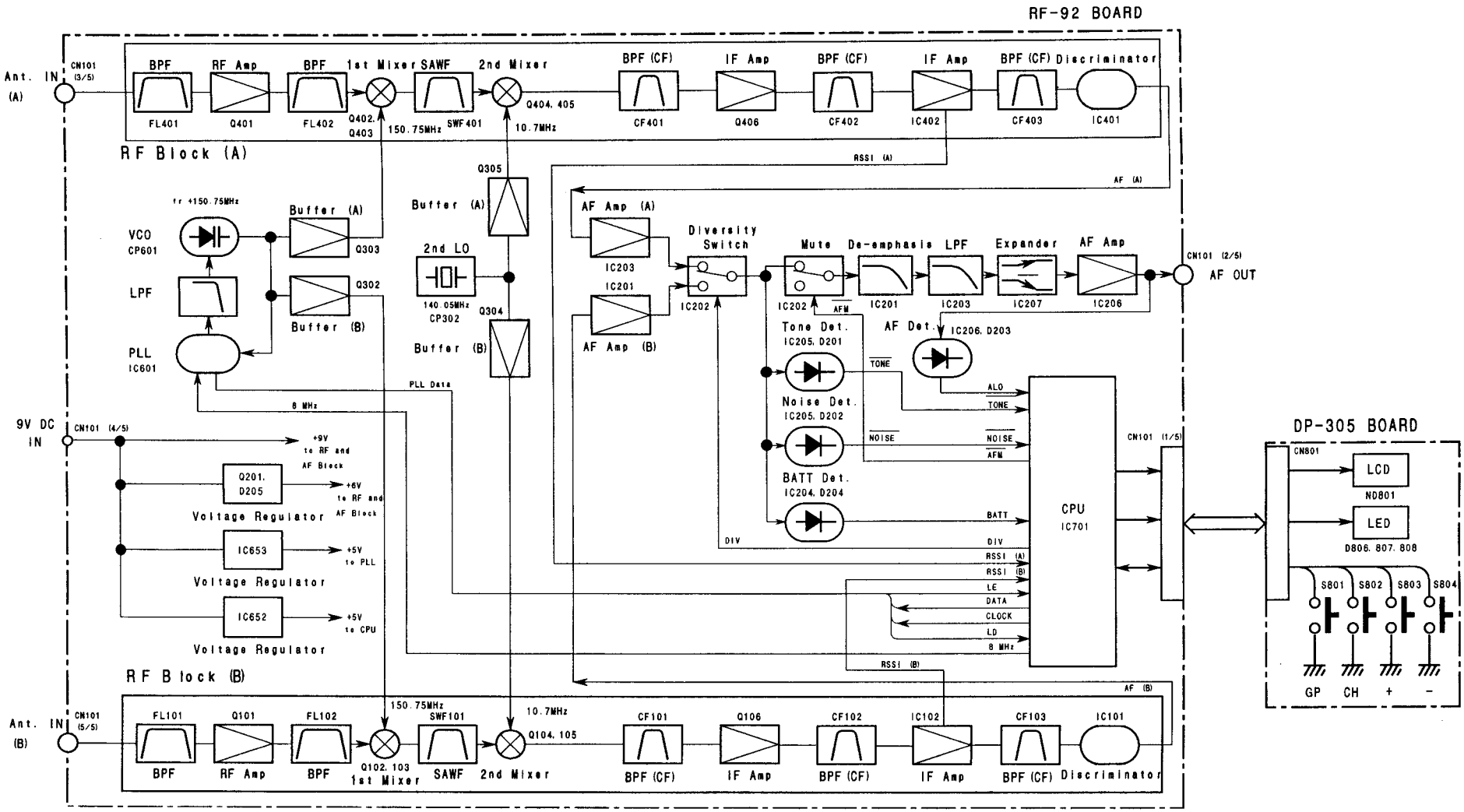
RE-176 board

This board is functioned as voltage regulator for the tuner unit.



Overall Block Diagram

WRR-802A

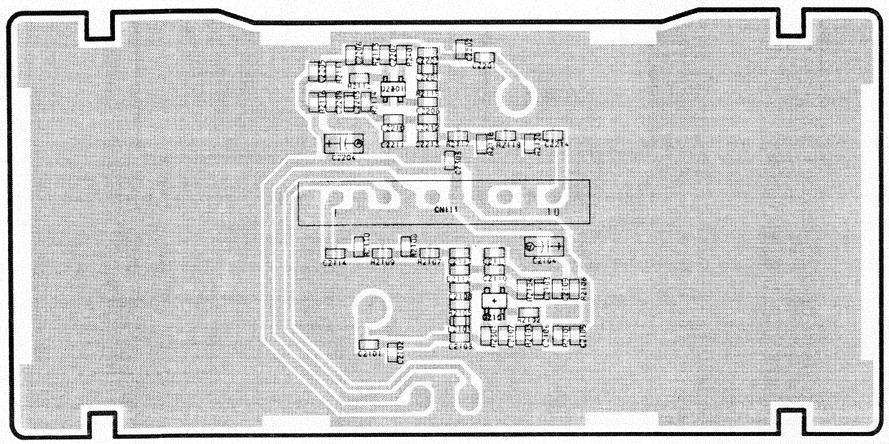


Tuner Unit Block Diagram

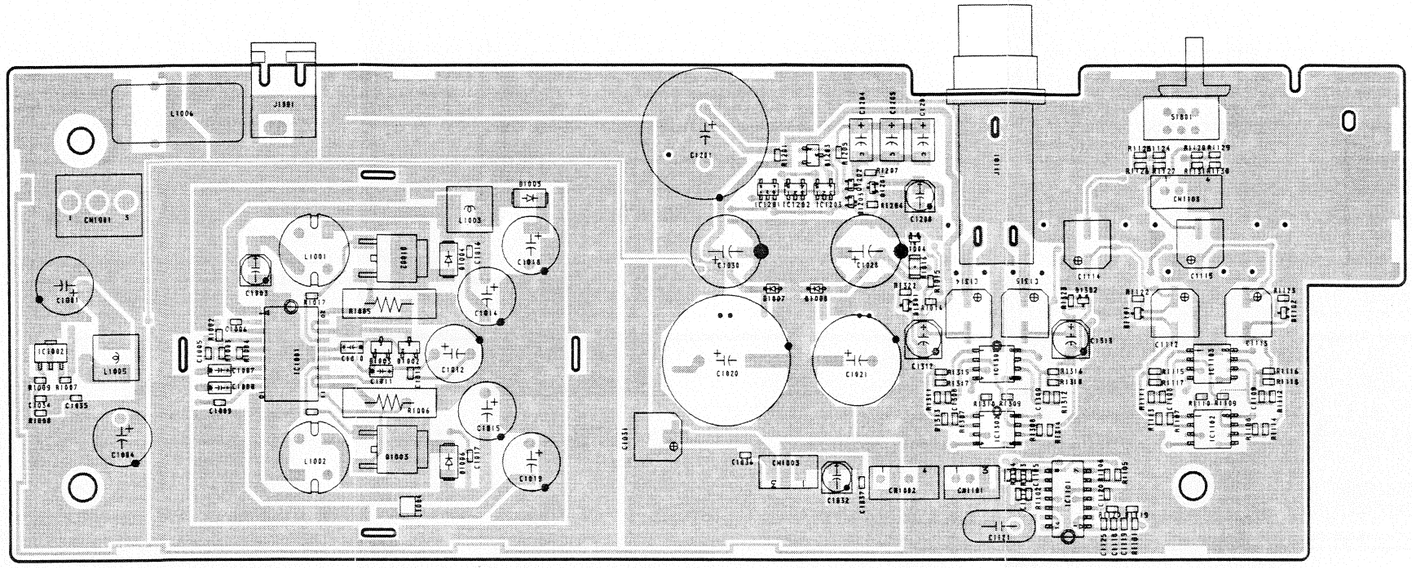
WRR-802A

CN-1922, CN-1923

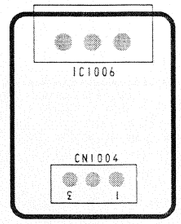
Section 7
Board Layouts



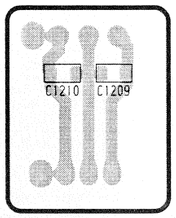
MB-872, RE-176, VR-261



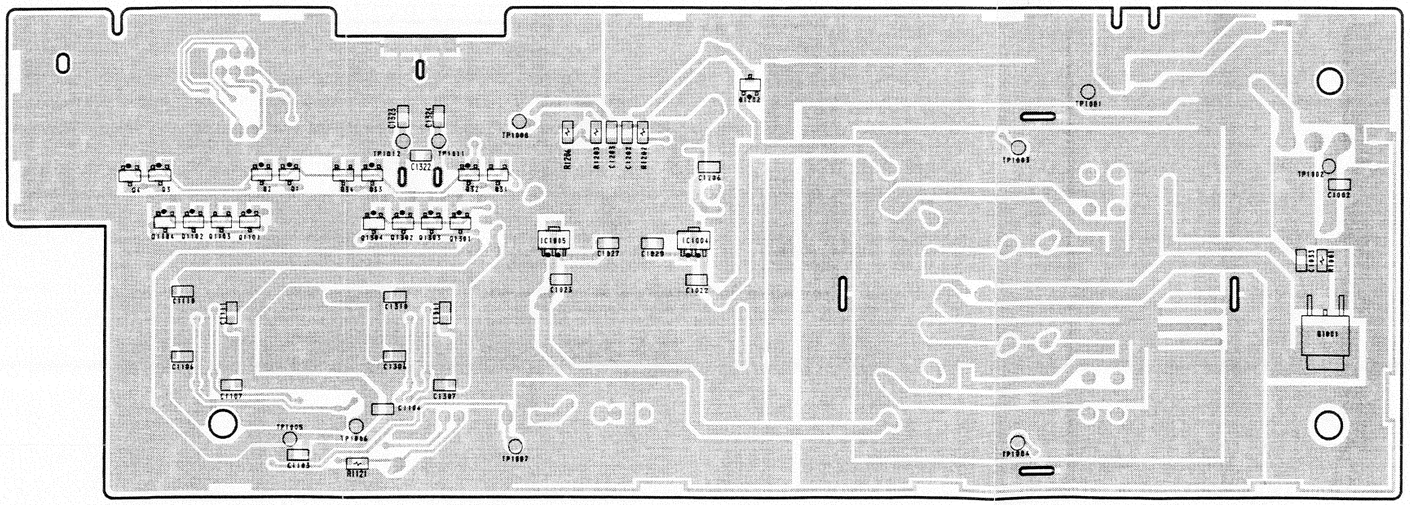
MB-872 -A SIDE-
1-674-356-11



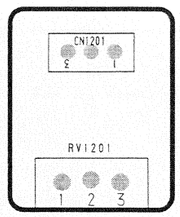
RE-176 -A SIDE-
1-674-360-11



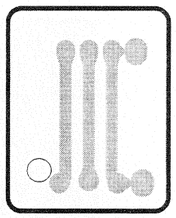
RE-176 -B SIDE-
1-674-360-11



MB-872 -B SIDE-
1-674-356-11



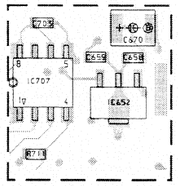
VR-261 -A SIDE-
1-674-359-11



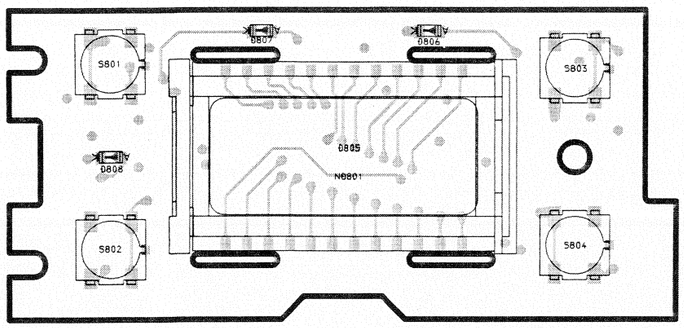
VR-261 -B SIDE-
1-674-359-11

7-2

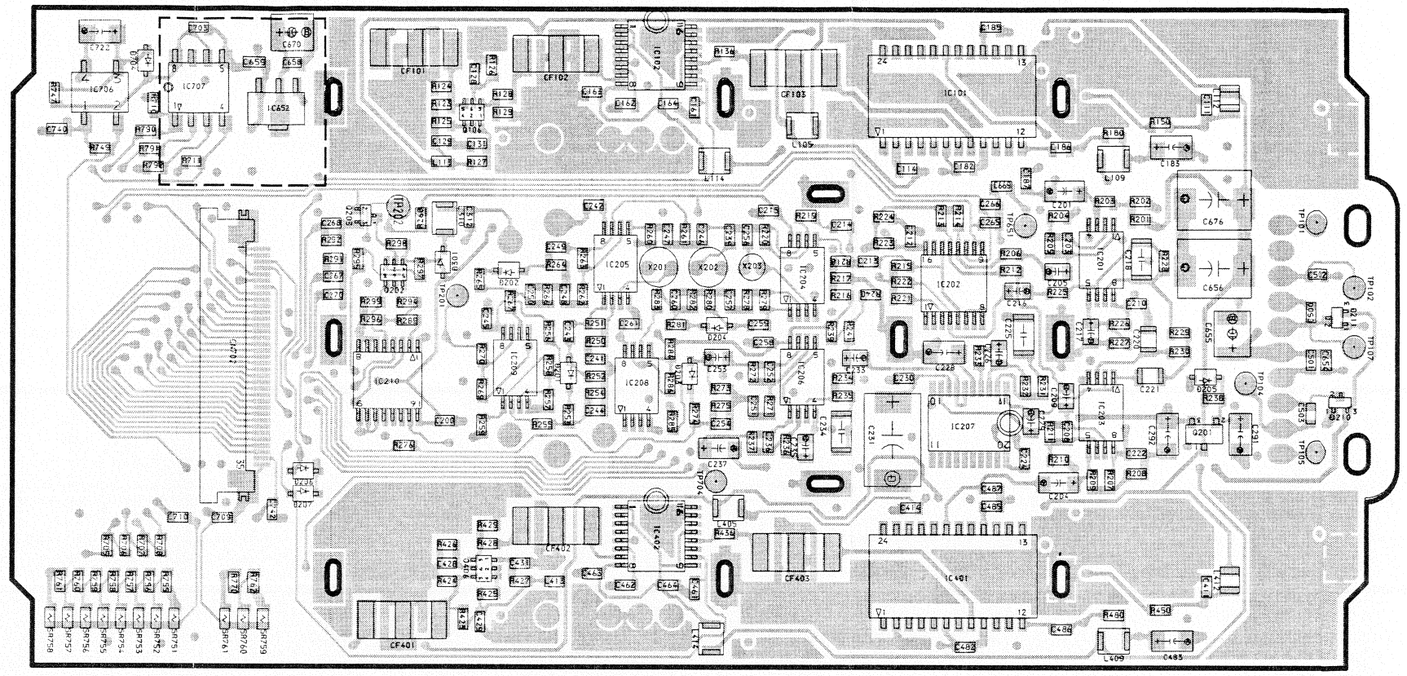
Tuner Unit



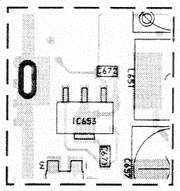
FOR BOARD NO. SUFFIX:-12



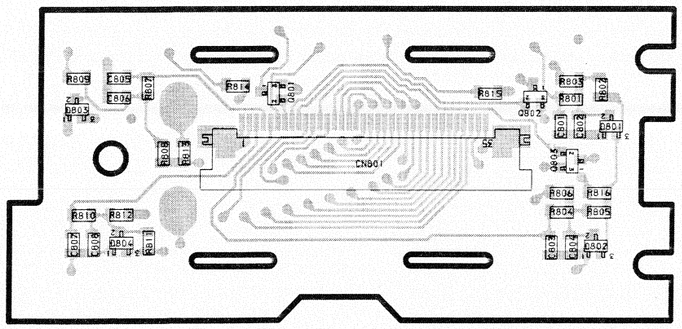
DP-305 -A SIDE-
1-674-365-11



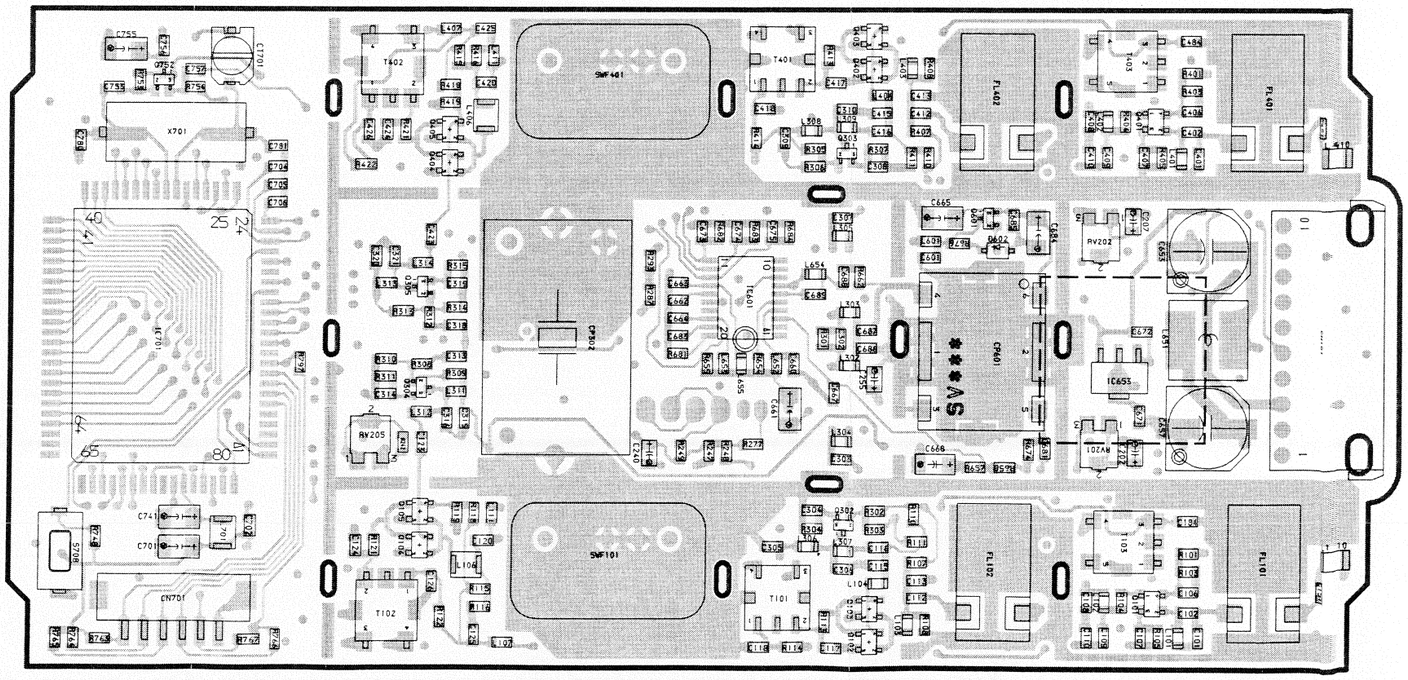
RF-92 -A SIDE-
1-674-364-11



FOR BOARD NO. SUFFIX:-12

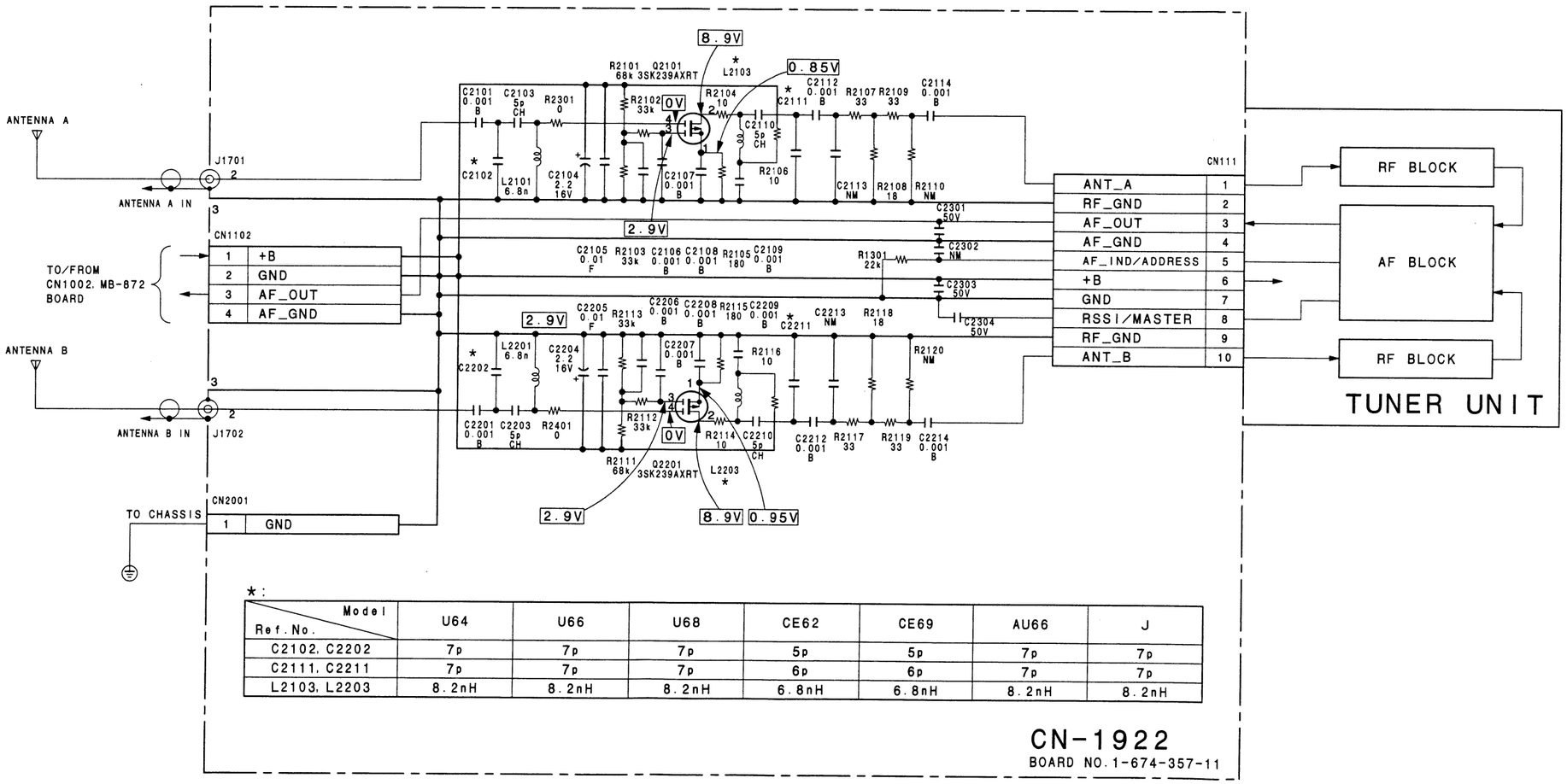


DP-305 -B SIDE-
1-674-365-11



RF-92 -B SIDE-
1-674-364-11

Section 8
Schematic Diagrams



★:

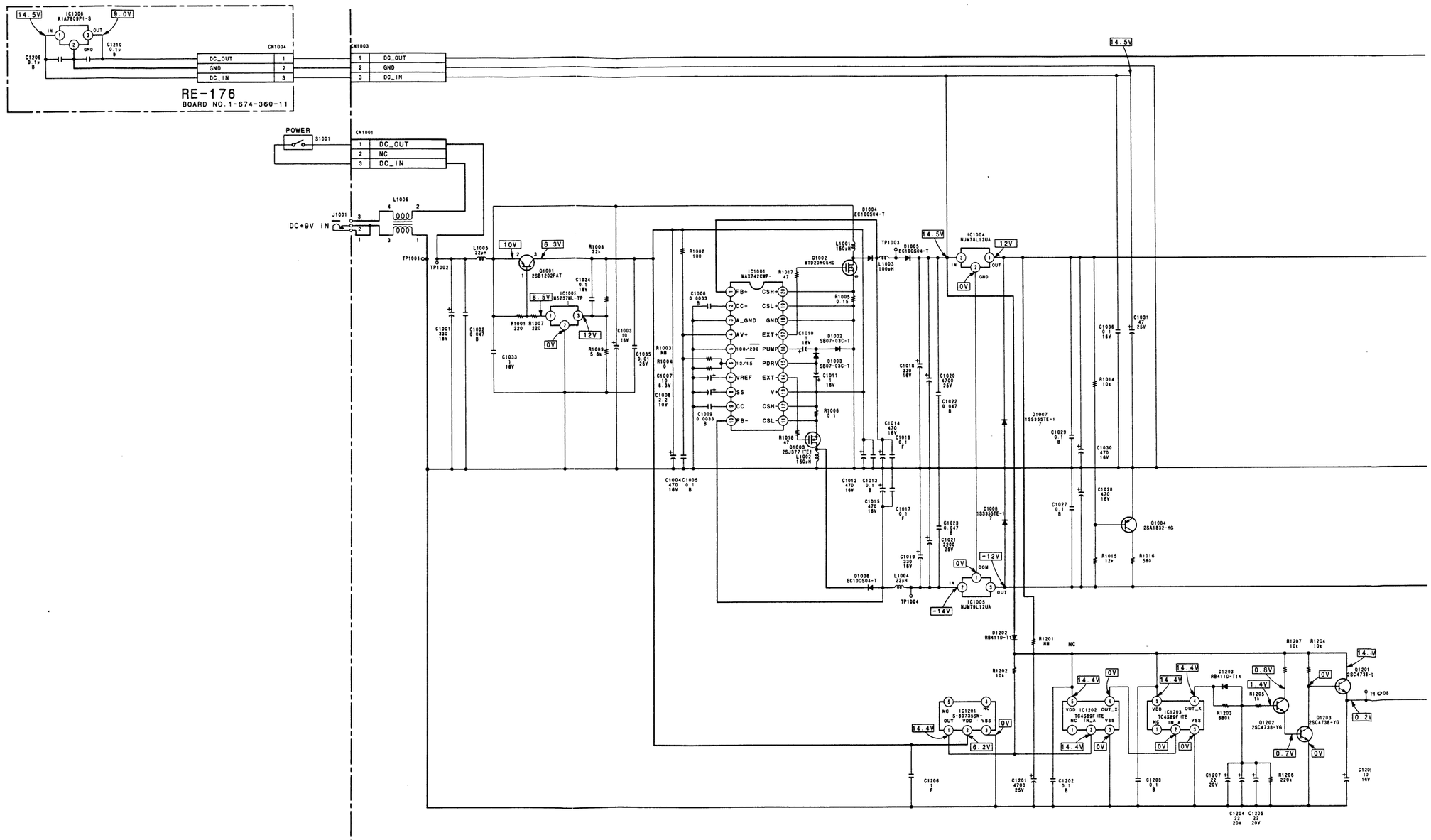
Ref. No. \ Model	U64	U66	U68	CE62	CE69	AU66	J
C2102, C2202	7p	7p	7p	5p	5p	7p	7p
C2111, C2211	7p	7p	7p	6p	6p	7p	7p
L2103, L2203	8.2nH	8.2nH	8.2nH	6.8nH	6.8nH	8.2nH	8.2nH

NOTE
• DC Voltage are taken with digital multimeter (input impedance 1 MΩ or more) under no-signal conditions.

注意
• DC電圧値は，デジタルテスタ(入力インピーダンス1MΩ以上)を使用して無信号入力状態で測定した参考値

CN-1922
BOARD NO. 1-674-357-11

MB-872, CN-1923, RE-176, VR-261

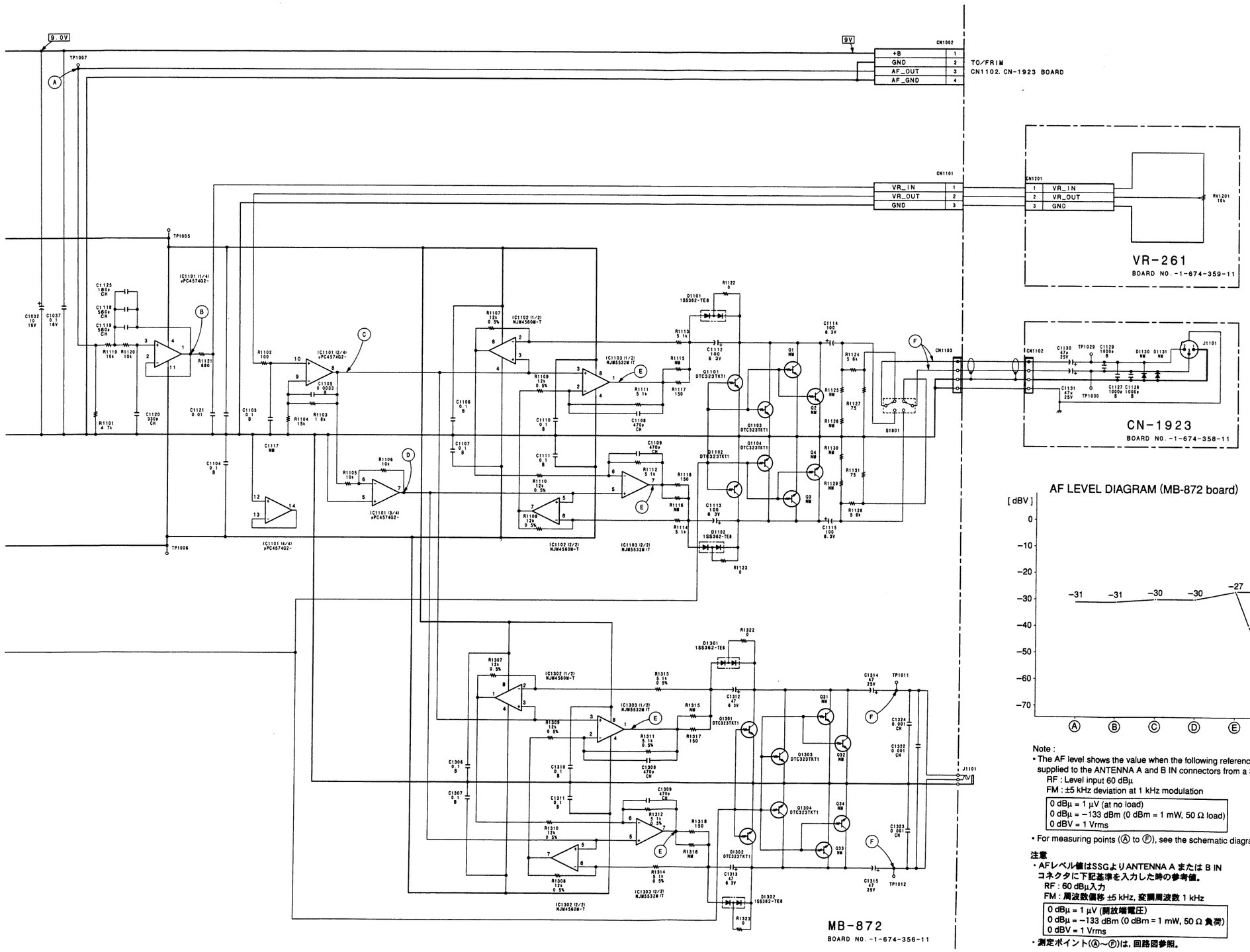


NOTE
- DC Voltage are taken with digital multimeter (input impedance 1 MΩ or more) under no-signal conditions.

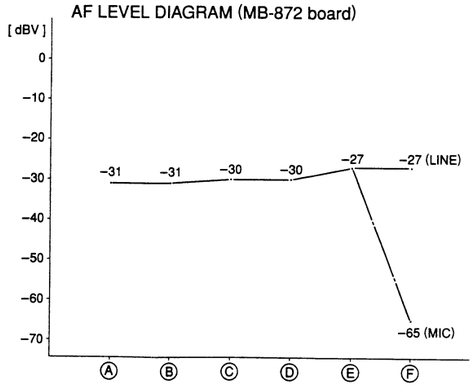
注意
- DC電圧値は，デジタルテスタ(入力インピーダンス1MΩ以上)を使用して無信号入力状態で測定した参考値

8-2

MB-872, CN-1923, RE-176, VR-261



AF LEVEL DIAGRAM (MB-872 board)



Note :
- The AF level shows the value when the following referencesignal is supplied to the ANTENNA A and B IN connectors from a SSG.
  RF : Level input 60 dBμ
  FM : ±5 kHz deviation at 1 kHz modulation

  0 dBμ = 1 μV (at no load)
  0 dBμ = −133 dBm (0 dBm = 1 mW, 50 Ω load)
  0 dBV = 1 Vrms
- For measuring points (Ⓐ to Ⓕ), see the schematic diagram.

注意
- **AFレベル値はSSGよりANTENNA A または B IN コネクタに下記基準を入力した時の参考値。**
  RF : 60 dBμ入力
  FM : **周波数偏移** ±5 kHz, **変調周波数** 1 kHz

  0 dBμ = 1 μV (**開放端電圧**)
  0 dBμ = −133 dBm (0 dBm = 1 mW, 50 Ω **負荷**)
  0 dBV = 1 Vrms
- **測定ポイント(Ⓐ～Ⓕ)は, 回路図参照。**

MB-872
BOARD NO. 1-674-356-11

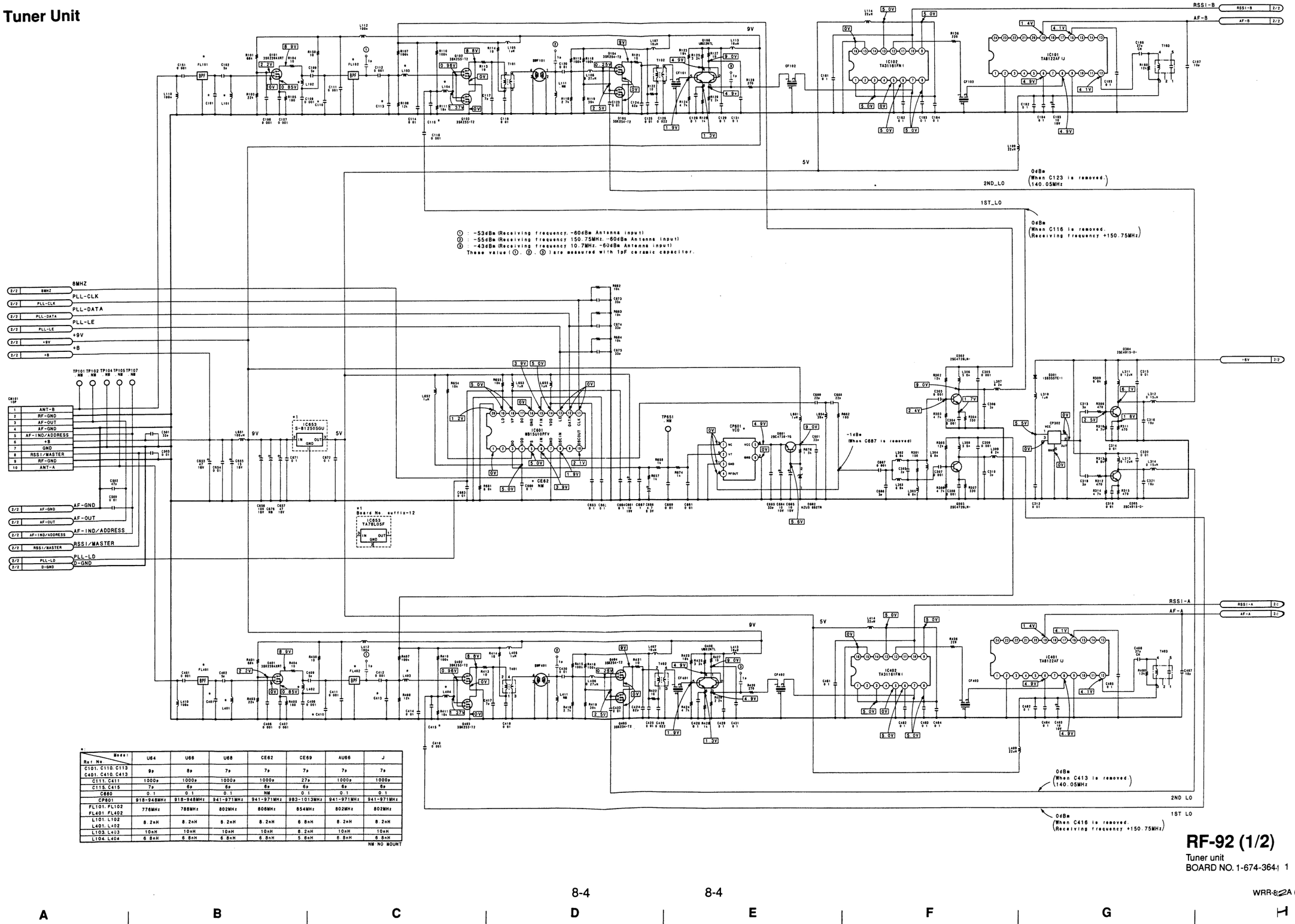
CN-1923
BOARD NO. 1-674-358-11

RE-176
BOARD NO. 1-674-360-11

VR-261
BOARD NO. 1-674-359-11

RF-92 (1/2)

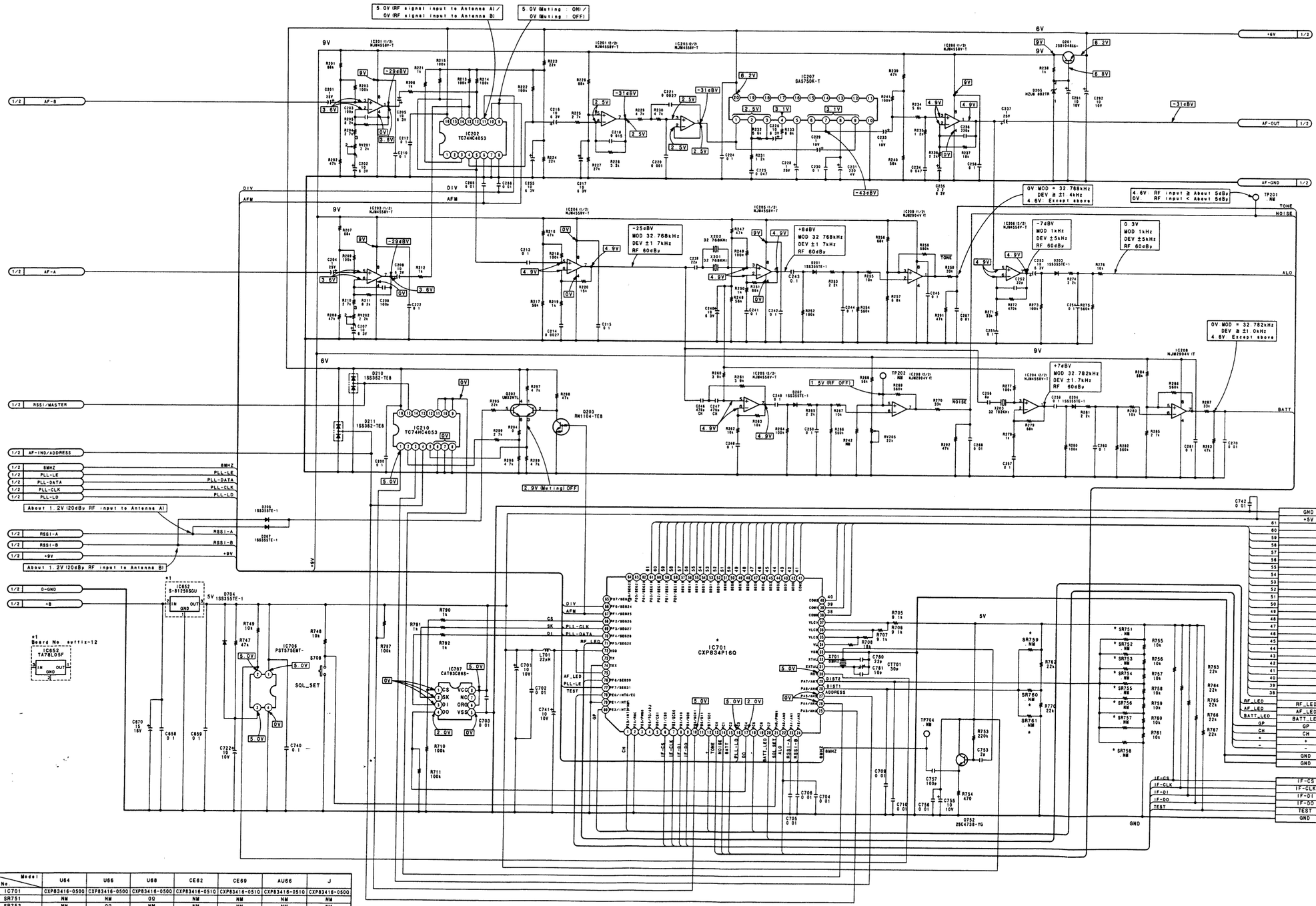
Tuner Unit



Model / Ref No	U64	U66	U68	CE62	CE69	AU66	J
C101, C110, C113, C401, C410, C413	9p	8p	7p	7p	7p	7p	7p
C111, C411	1000p	1000p	1000p	1000p	27p	1000p	1000p
C115, C415	7p	6p	6p	6p	6p	6p	6p
C680	0.1	0.1	0.1	NM	0.1	0.1	0.1
CP801	918-948MHz	918-948MHz	941-971MHz	941-971MHz	983-1013MHz	941-971MHz	941-971MHz
FL101, FL102, FL401, FL402	776MHz	788MHz	802MHz	806MHz	854MHz	802MHz	802MHz
L101, L102, L401, L402	8.2nH	8.2nH	8.2nH	8.2nH	6.8nH	8.2nH	8.2nH
L103, L403	10nH	10nH	10nH	10nH	8.2nH	10nH	10nH
L104, L404	6.8nH	6.8nH	6.8nH	6.8nH	5.6nH	6.8nH	6.8nH

NM: NO MOUNT

RF-92 (1/2)
Tuner unit
BOARD NO. 1-674-364-11

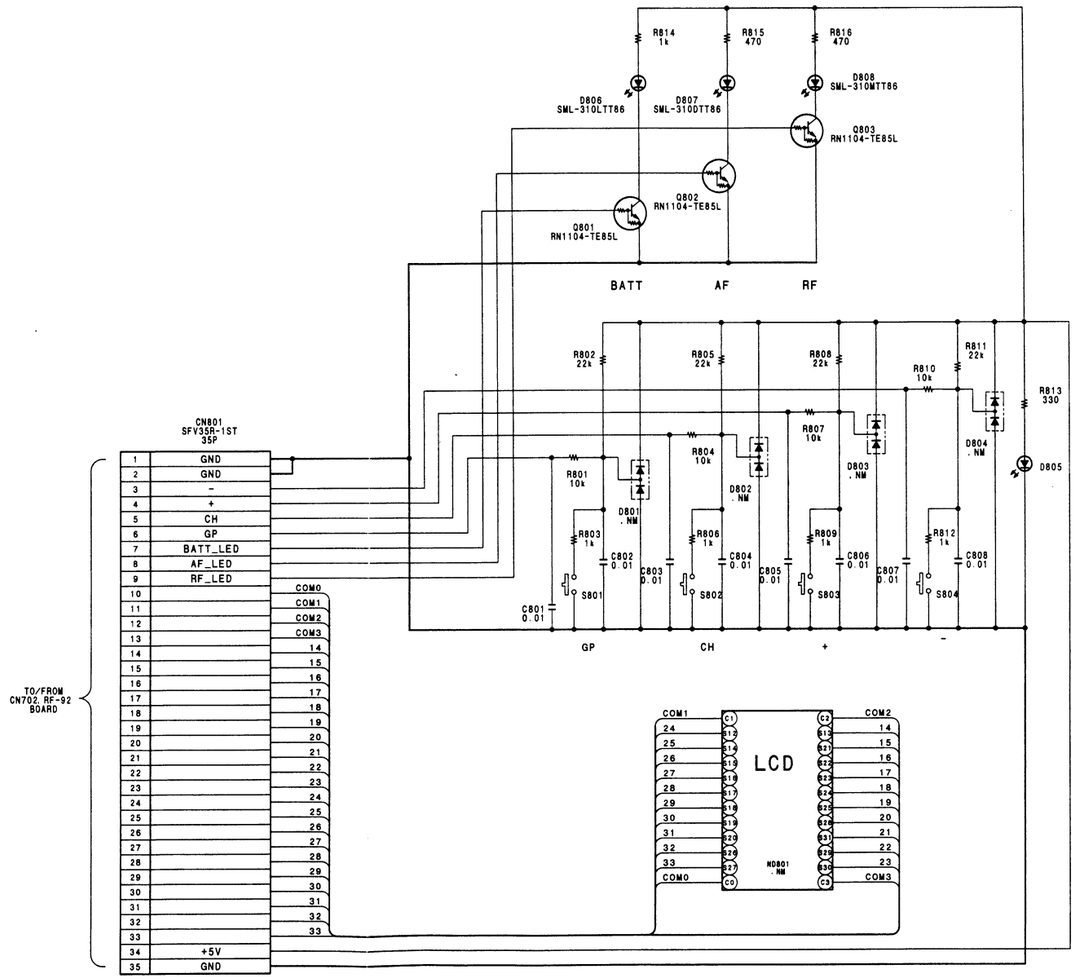


Ref. No. \ Model	U64	U66	U68	CE62	CE69	AU66	J
IC701	CXP83416-050Q	CXP83416-050Q	CXP83416-050Q	CXP83416-051Q	CXP83416-051Q	CXP83416-051Q	CXP83416-050Q
SR751	NM	NM	00	NM	NM	NM	NM
SR752	NM	00	NM	NM	NM	NM	NM
SR753	00	NM	NM	00	NM	NM	NM
SR754-757	NM	NM	NM	NM	NM	NM	NM
SR758	NM	NM	NM	00	NM	00	00
SR759	00	00	00	NM	NM	NM	00
SR760	NM	NM	00	NM	NM	NM	NM
SR761	NM	NM	NM	NM	00	00	NM

NM: NO MOUNT

RF-92 (2/2)

Tuner unit
BOARD NO. 1-674-364-11



DP-305

Tuner unit
BOARD NO. 1-674-365-11